DRAGON PRODUCTS COMPANY
Box 191, U.S. Route 1 • Thomaston, Maine 04861

CERTIFIED MAIL RECEIPT No. 70142120000082012860

February 3, 2015

Mr. Darren Fortescue
Environmental Engineer, Air Technical Unit
US EPA - Region I
5 Post Office Square, Suite 100
Mail code: OES04-2
Boston, MA 02109-3912

Re: Dragon Products Company, LLC
NOx Baseline Data Report Submittal

Dear Mr. Fortescue:

Dragon Products Company, LLC (Dragon) is submitting to the U.S. Environmental Protection Agency (EPA) the Baseline Data Report pursuant to Condition 5(c) of Attachment 1 of Consent Agreement and Final Order (CAFO) Docket No. CAA 01-2013-0053. Pursuant to Condition 5(d) of Attachment 1 of the CAFO, Dragon is submitting a USB flash drive containing an electronic copy of the report formatted in Microsoft Excel. Also included with this submittal is a hard copy of the report.

If you have any questions or concerns regarding the report, please contact Mr. Michael Martunas, Environmental Manager, at (207) 593-0147.

By signing this letter, I certify that, based on information and belief after reasonable inquiry, that the statements and information contained in the enclosed report are to the best of my knowledge and belief true, accurate and complete.

Sincerely,

Raymond J. DeGrass
Plant Manager
Dragon Products Company, LLC

Enclosures

c.c. Stephen P. Holt, P.E. (Dragon)
Kathleen Tarbuck, P.E. (MEDEP)
Christine Sansevero (EPA)
Steven Rapp (EPA)

Dragon Products Company, LLC

USEPA Consent Agreement and Final Order (Docket No. CAA 01-2013-0053)

Baseline Demonstration Period Report

Prepared for:
USEPA and Maine DEP

Prepared by:
Dragon Products Company, LLC

February 2015

Attachments:

1.0 Executive Summary

On September 17, 2013,Dragon Products Company, LLC entered into a Consent Agreement and Final Order (CAFO) to settle alleged violations "of the Maine state implementation plan ("SIP") and of the Clean Air Act ("CAA") concerning the construction or modification of a major stationary source without obtaining and operating in compliance with new source review ("NSR") requirements."[1] Although Dragon denies it violated the SIP and CAA as alleged, Dragon and EPA agreed to the settlement without litigation.

The CAFO includes a step-wise process to determine an appropriate NOx emissions limitation associated with the facility's pre-heater/pre-calciner kiln, utilizing the facility's SNCR system as a NOx control device. The first step of the CAFO process requires Dragon to install a NOx continuous emissions monitoring system (CEM) located prior to ammonia injection to identify baseline "uncontrolled" NOx emissions from the kiln while operating under normal operating conditions.

Specifically, Condition 28.a of the CAFO requires Dragon to:

> "a. Install and Operate Baseline NOx Monitor: Dragon shall install a NOx monitor to continuously measure baseline, uncontrolled NOx emissions for the kiln ("inlet NOx monitor")…."

Attachment 1 of the CAFO details the specific operational and data collection requirements during the facility's baseline demonstration period.

Dragon installed the facility's "inlet NOx monitor" and commenced the baseline data collection period on March 6, 2014. In accordance with Condition 5.c of Attachment 1, the baseline demonstration period ended on December 6, 2014 (9 months from commencement).

Condition 5.c of Attachment 1 requires Dragon to "submit to EPA and DEP a "Baseline Data Report" including the baseline data collected during the baseline collection period." The following document and attachments provide the Baseline Data Report and includes all data elements required under Attachment 1, Condition 5.c.

Section 2.0 of this report provides term definitions relevant to the baseline report and Section 3.0 provides a summary discussion of the data collected and provided to demonstrate compliance with the baseline data collection requirements of the CAFO.

[1] September 17, 2014 Consent Agreement and Final Order, USEPA and Dragon Products Company, LLC

Section 4.0 provides a discussion of the data handling procedures during the baseline period, including a discussion of "gaps in the data or missing data."

2.0 Definitions and Baseline Requirements

2.1 CAFO Definitions

Section 3 of the CAFO Attachment 1 provides definitions for several terms included in the CAFO. The following provides definitions relevant to the baseline data collection period and report:

- **"Inlet NOx monitor"** shall mean a NOx monitor to continuously measure baseline, uncontrolled NOx emissions from the kiln.
- **"Operating Day"** shall mean any day which includes an Operating Hour.
- **"Operating Hour"** shall mean any hour of a day when raw material is being fed into the kiln and fuel is being fired in the kiln.
- **"SNCR"** shall mean the existing pollution control system that injects an ammonia-based reagent into the gas stream before it has exited the kiln stack for the purposes of reducing NOx emissions.

2.2 Baseline Period Commencement, Duration and Kiln Operation

Section 5 of the CAFO Attachment 1requires Dragon to:

- "…commence the baseline data collection period as soon as normal operation of the NOx monitor begins, after any necessary testing, calibration and shakedown period… is complete. Data collection shall begin no later than 120 days from the effective date of the CAFO. The baseline collection period shall include all hours of kiln operation. Dragon shall conduct the baseline collection period for 9 months from the date of commencement."
- "… operate the kiln in accordance with existing air emission license requirements…. Dragon shall not adjust operating parameters to increase the rate of emission … for uncontrolled NOx…. Dragon shall operate the kiln in a manner consistent with good air pollution control practices for achieving applicable emission limitations for pollutants other than NOx."

Dragon completed the installation of the NOx monitor by December 16, 2013. The kiln was shut down on January 15, 2014 for planned winter outage. Dragon commenced operation of the kiln on February, 2014. A representative from FL Schmidt, the manufacturer of the inlet NOx monitor, was on site the week of February 17, 2014 to perform system startup and commissioning services. Eastmount Environmental Services, LLC was contracted to perform a Relative Accuracy Test Audit (RATA) on the system. The RATA was performed on March 5, 2014. The baseline data collection period commenced on March 6, 2014. The

baseline collection period was performed continuously (including all hours of kiln operation), until December 6, 2014 (9 months after commencement of the baseline period).

Dragon operated the kiln in accordance with all existing air emissions license requirements and did not adjust operating parameters in any way to increase the rate of emissions of uncontrolled NOx during the baseline period. In addition, Dragon operated the kiln in a manner consistent with good air pollution control practices and therefore, all data included in the baseline data collection period report represent "normal" uncontrolled NOx emissions from the source.

3.0 Baseline Data Collection Period – Data Elements

3.1 Kiln Production Rate

Condition 5.c.i requires Dragon to collect the "kiln production rate in tons of clinker (daily total)." Dragon monitors kiln feed to the system using a, FL Smidth (FLS), Pfister feeder (a gravimetric rotary weigh feeder designed to meter pulverized materials into the cement manufacturing process) and converts the raw material feed rate to clinker production using a calcination factor specific to the facility. Daily total kiln production rates are provided in the table provided in Attachment 1 of this report.

3.2 Raw Material Feed Rate

Condition 5.c.ii requires Dragon to collect "raw material feed rate in tons (daily total)." As detailed above, Dragon monitors kiln feed to the system using a Pfister feeder. Daily total raw material feed rates are provided in the table provided in Attachment 1 of this report.

3.3 Raw Mill Operating Status:

Condition 5.c.iii requires Dagon to submit the "operating status of the raw mill, i.e., whether the raw mill is on or off." Dragon maintains electronic records of the start and stop time for the operation of the facility's in-line raw mill. A copy of these logs documenting the operating up-time for the raw mill is provided as Attachment 2 of this report.

3.4 Type, Percentage, and Feed Rate of Each Raw Material Used:

Condition 5.c.iv requires Dagon to submit the "type and percentage of each raw material used and the total feed rate daily." As detailed in Section 2.2 above, Dragon monitors the total raw material (mix) feed rates to the kiln on an hourly and daily basis and the daily total feedrates are provided in Attachment 1 of this report. In addition, Dragon monitors the types and quantities of the individual constituents of the raw material mix produced on a daily basis.

A summary of the daily raw material constituent make-up is provided in Attachment 3 of this report. However, it should be noted that following the production of the raw material mix (in the raw mills), the raw material must travel through the facility's raw material homogenizing silo before it enters the kiln. The residence time of the raw material silo varies from approximately eight (8) to twenty-four (24) hours. Therefore, the daily raw materials identified in the constituent

breakdowns detailed in Attachment 3 are not fed to the kiln until they have passed through the facility's raw material homogenizing silo.

3.5 NOx Concentrations and Mass Rates:

Condition 5.c.v requires Dragon to submit "NOx concentrations (dry basis) and mass rates for the Kiln (daily average for concentrations and daily totals for mass rates) as measured at the inlet NOx monitor…" Additionally, Condition 5.c.v clarifies that the "NOx shall be reported in lb/hr and lb/ton of clinker produced."

Dragon collects the hourly average inlet NOx concentrations (ppmvd) using the newly installed "inlet NOx monitor" and calculates NOx emission rates (lb/hr) using an air flow meter and temperature probe located in kiln system's "downcomer" section prior to the gas conditioning system Daily averages are then calculated by averaging each valid operating hour value data point.

NOx emissions in units of "lb/ton of clinker produced" are calculated using the daily total of NOx emissions (lb/day) divided by the daily total clinker production (tn/day, as detailed in Section 2.1 above). The daily NOx emission rates (lb/day) are calculated by multiplying the daily average emission rate (lb/hr) by the kiln operating time. The daily average NOx concentrations (ppmvd) and daily average emission rates (in units of both lb/hr and lb/ton clinker) are provided in the table in Attachment 1 of this report.

3.6 Stack Ammonia Concentrations:

Condition 5.c.vi requires Dragon to submit "ammonia concentrations (dry basis) as measured at the stack." Dragon installed a Fourier – Transfer - Infrared (FTIR) CEMS capable of measuring ammonia emissions on its kiln stack in October 2014. However, Dragon experienced significant delays associated with the installation and operation of the CEMS and therefore limited data is available during the reporting period. Prior to the installation of the new stack ammonia CEMs, Dragon had not monitored ammonia at the stack on a continuous basis. Note that the CAFO did not require the installation of an ammonia CEMS as part of the baseline demonstration period and only "available" data was required to be submitted as part of the baseline report. Prior to the installation of the ammonia CEMs, the only available ammonia concentration data were emissions data measured during the facility's ammonia slip testing.

Therefore, Dragon is submitting as Attachment 4 of this report, the valid ammonia CEMs data collected during the baseline collection period, as well as relevant pages

of the latest ammonia slip testing report detailing the measured stack ammonia concentrations. The ammonia slip testing was conducted on March 24-25, 2014.

3.7 Burning Zone Temperatures:

Condition 5.c.vii requires Dragon to submit "available temperature data indicative of the burning zone (daily average)." Dragon does not monitor the temperature within the kiln (i.e.- burning zone). The temperature monitor closest to the "burning zone" is a thermocouple located at the kiln "feed shelf." Please refer to Section 3.8 below.

3.8 Feed Shelf Temperature:

Condition 5.c.viii requires Dragon to submit "feed shelf temperature (daily average)." Dragon continuously monitors temperature using a thermocouple located at the feed shelf and a summary of daily average feed shelf temperatures are provided in Attachment 1.

3.9 Kiln Fuel Types and Feed Rates:

Condition 5.c.ix requires Dragon to submit "kiln fuel feed rate and type of fuel by weight or heat input rate (calculated to a daily average)." Dragon utilized only petcoke as its fuel to fire the on-site cement kiln until September 2014, at which time Dragon commenced its alternative fuel program utilizing chipped tires and recycled carpet material. Petcoke and alternative fuel feedrates are monitored and reported on a "weight basis" (i.e.- tons per hour). Daily average feedrates of petcoke and alternative fuels are provided in Attachment 1.

3.10 Kiln, Back-end, Feed Shelf Oxygen:

Condition 5.c.x requires Dragon to submit "kiln oxygen, kiln back-end oxygen, or feed shelf oxygen (daily average %)." The closest oxygen monitor to the "kiln" is located in the calciner at the location of the inlet NOx monitor. This monitor is located approximately ninety (90) feet downstream from the kiln back end. A summary of the calciner % oxygen values is provided in Attachment 1.

3.11 Documentation of any SSM Events:

Condition 5.c.xi requires Dagon to submit "documentation of any SSM events." Dragon maintains Operator logs and electronic records of the start and duration of all start-up, shut-down, and malfunction events for its pre-heater, pre-calciner kiln.

A summary of the startup, shut-down, and malfunction events is provided as Attachment 2 of this report.

3.12 Data Gaps and Missing Data:

Condition 5.c.xii requires Dagon to provide "an explanation of any gaps in the data or missing data." As detailed above, Attachment 1 provides daily summaries of several of the baseline data elements required under the CAFO. Included in Attachment 1 is a short description of the cause for missing daily data (i.e.- dates for which no data was available for that individual date). Also included, although not required under the CAFO, are two columns detailing the daily kiln operating hours and number of available hours of data for each date. A further description of the potential causes of missing data is provided in Section 4.2 below.

4.0 Data Handling

4.1 Valid Hour Determinations

All daily data elements are calculated using only hours where valid hourly average NOx emissions concentrations (ppmv) and rates (lb/hr) are available. This is done so that all data elements (including production rates, temperatures, etc.) reflect the averages (or totals) consistent with the same hours on which the NOx emission data are based.

In accordance with 40 CFR 60.13(h)(2), valid hours of NOx emissions (ppmv or lb/hr) are considered hours where there exists at least one emissions data point within each 15-minute block period within the hour.

4.2 Data Gaps and Missing Data

As detailed in Section 3.2 above, Attachment 1 provides short descriptions of the cause of missing data for each operating day. The following provides a more detailed description of several of these causes:

4.2.1 Sample Leaks

The oxygen levels measured at the inlet NOx monitor are typically in the 1-4% range. Oxygen levels up to 10% can occur during kiln transitions and upset conditions. However, several data points contained oxygen levels in excess of 10%, approaching ambient levels of 20.9%. A further review of the data associated with these times revealed that they were the result of leaks within the gas sampling system, resulting in artificially low NOx concentration levels. The leaks were the result of faulty "O-rings;" rubber gaskets that act as seals within the gas sampling system. Due to excessive heat and particulate matter, the seals may malfunction, resulting in ambient air entering the gas sampling stream. Dragon routinely replaces the O-rings during quarterly system maintenance and whenever elevated oxygen data is observed. These data points have been omitted as "erroneous data."

4.2.2 Shutter Failure

The FLS Kilnloq probe system is designed for high temperature and high particulate load environments associated with cement manufacturing. The probe is designed to move along a monorail system within an enclosure and the probe automatically inserts and retracts during cleaning cycles. When

the probe is inserted or retracted from the monitoring location a system of shutter valves open and close around the probe. The shutter valves act as a seal around the probe to prevent hot dust and gases from exiting the kiln system. The expulsion of hot dust and gases from the kiln system is especially prevalent during periods of kiln startup when the atmosphere within the kiln system may be under positive pressure. The probe system utilizes a shutter position sensor to detect that the shutters are in proper position. If the sensor does not detect the shutters in the proper position the system retracts the probe.

Dragon experienced numerous problems with the operation of the shutter valves. Dust from the process consistently bound to the shutters causing poor performance. In addition, the shutter position sensor required consistent adjustment and maintenance for proper operation. Over time Dragon gained operational experience with the system and through daily inspection and preventative maintenance was able to limit the occurrences of shutter valve failure.

4.2.3 High Water Temperature

The FLS Kilnloq system uses a closed loop cooling system to regulate temperatures within the probe system. When temperatures are monitored outside the acceptable range, the system automatically shuts down to prevent damage. During the baseline collection period a water temperature sensor failed, causing the system to automatically shut down. As a result, Dragon ordered a replacement sensor; however due to the specialized nature of the system, the product needed to be shipped from the manufacturer in Denmark. Dragon installed the replacement sensor immediately upon receipt. Unfortunately, the replacement sensor was defective. Dragon returned the defective sensor and reordered a replacement. The High Water Temperature fault was repaired when the second replacement sensor was installed.

4.2.4 Low Water Flow Alarm

The FLS Kilnloq system uses pressure sensors to detect the flow of cooling water within the probe system. If the system does not detect flow within acceptable ranges, the system shuts down to prevent damage. During the baseline collection period a flow pressure sensor failed. Dragon ultimately replaced the sensor and corrected the low flow problem.

4.2.5 Flow Meter Malfunction

Dragon installed a McONAIR single channel air flow measurement system to collect air flow data within the kiln system. The data collected by the air flow meter is used to calculate baseline NOx pounds per hour data. Dragon experienced consistent malfunctions of the air flow meter towards the end of the baseline collection period. Dragon contacted the manufacturer and performed a series of diagnostic tests on the system. It was determined that the factory settings for the scaling configuration had been set at or near the limits for the conditions at Dragon. Over time the unit consistently exceeded the factory limits, resulting in readings of "zero" (0). Dragon adjusted the scaling configuration for the unit, under the guidance of the manufacturer, and effectively repaired the malfunction.

4.2.6 Data Logger Malfunction

For the three days, June 15-18, 2014, Dragon's process data logger malfunctioned and no fuel feed rate data was collected. The cause of the malfunction is unknown. Therefore, no fuel data are available for these days.

4.3 Other Data Issues

During the period from November 6 through December 6, 2014, the temperature thermocouple located at the inlet NOx monitor flow meter malfunctioned. However, there is a thermocouple located approximately thirty (30) feet downstream from the flow meter. Based on previous data, the temperature differential between these two flow meter locations is approximately one degree Fahrenheit. Based on average temperature readings of approximately 800 degrees Fahrenheit, this one degree differential causes an insignificant change in corrected flow rates (i.e.- standard cfm). Therefore, Dragon utilized the downstream thermocouple measurements to correct the flow readings from the inlet NOx monitor flow meter.

ATTACHMENT 1

Dragon Products Company, LLC

CAFO Data Elements Summary Table

Dragon Products Company, LLC
USEPA and Dragon Products Company, LLC
Consent Agreement and Final Order
Attachment I: Condition 5: Baseline Data Collection
Daily Data Summaries

Sheet 1: Baseline Period Daily Data Values:

	c.1	c.ii	c.iii	c.iv			c.v			c.vi	c.vii	c.viii	c.ix			c.x	c.xi	c.xii		
Date	Kiln Production (tpd)	Raw Material Feed Rate (tpd)	Raw Mill Operating Status (RM-on/ RM-off)	Type Raw Material Used	% of Raw Material Used	Tons Raw Material Used (tpd)	Daily Average NOx Concentration (ppmvd)	Daily Average NOx Emiss. Rate (lb/hr)	Daily Average NOx Emiss. Rate (lb/tn)	Stack Ammonia Conc. (ppmvd)	Daily Average Burning Zone Temp. (°F)[1]	Daily Average Feed Shelf Temp (°F)	Daily Average Coke Fuel Feed Rate (tph)	Daily Average Tire Fuel Feed Rate (tph)	Daily Average Carpet Feed Rate (tph)	Daily Average kiln Oxygen (%)[2]	Start-up, Shut-down Periods	Data Gap Explanations	Daily Operating Hours	Daily NOx Data Hours
3/5/2014	2097	3561	See Sheet 2	See Sheet 3			1484.99	629.97	5.95	See Sheet 4	Not Available	1865.45	10.05	0.00	0.00	2.96	See Sheet 2	N/A	19.80	20.00
3/6/2014	1822	3094	See Sheet 2	See Sheet 3			1317.75	567.38	6.72	See Sheet 4	Not Available	1791.36	10.20	0.00	0.00	3.21	See Sheet 2	N/A	21.57	16.00
3/7/2014	2170	3685	See Sheet 2	See Sheet 3			1133.04	513.18	5.68	See Sheet 4	Not Available	1762.84	10.46	0.00	0.00	3.70	See Sheet 2	N/A	24.00	16.00
3/8/2014	2043	3469	See Sheet 2	See Sheet 3			1185.09	532.71	6.26	See Sheet 4	Not Available	1739.67	10.36	0.00	0.00	3.61	See Sheet 2	N/A	24.00	24.00
3/9/2014	2129	3615	See Sheet 2	See Sheet 3			1186.48	550.62	6.21	See Sheet 4	Not Available	1781.69	10.93	0.00	0.00	3.36	See Sheet 2	N/A	24.00	24.00
3/10/2014	2150	3651	See Sheet 2	See Sheet 3			1129.92	530.05	5.92	See Sheet 4	Not Available	1768.32	11.03	0.00	0.00	3.75	See Sheet 2	N/A	24.00	24.00
3/11/2014	2098	3563	See Sheet 2	See Sheet 3			1281.55	599.35	6.86	See Sheet 4	Not Available	1806.21	10.76	0.00	0.00	3.57	See Sheet 2	N/A	24.00	24.00
3/12/2014	2160	3668	See Sheet 2	See Sheet 3			1439.66	680.39	7.56	See Sheet 4	Not Available	1846.75	11.02	0.00	0.00	3.17	See Sheet 2	N/A	24.00	23.00
3/13/2014	1550	2632	See Sheet 2	See Sheet 3			1398.88	679.32	8.27	See Sheet 4	Not Available	1784.18	11.08	0.00	0.00	3.54	See Sheet 2	N/A	18.87	8.00
3/14/2014	2270	3855	See Sheet 2	See Sheet 3			1190.04	585.13	6.19	See Sheet 4	Not Available	1772.07	11.76	0.00	0.00	3.71	See Sheet 2	N/A	24.00	17.00
3/15/2014	1806	3067	See Sheet 2	See Sheet 3			1056.10	474.83	6.23	See Sheet 4	Not Available	1771.20	10.31	0.00	0.00	3.97	See Sheet 2	N/A	23.68	11.00
3/16/2014	2018	3427	See Sheet 2	See Sheet 3			1216.68	572.71	6.81	See Sheet 4	Not Available	1778.01	11.51	0.00	0.00	4.45	See Sheet 2	N/A	24.00	16.00
3/17/2014	1859	3157	See Sheet 2	See Sheet 3			1216.22	513.38	6.63	See Sheet 4	Not Available	1748.18	10.29	0.00	0.00	3.98	See Sheet 2	N/A	24.00	24.00
3/18/2014	1768	3003	See Sheet 2	See Sheet 3			1130.89	443.34	5.99	See Sheet 4	Not Available	1792.63	9.74	0.00	0.00	4.90	See Sheet 2	N/A	23.90	24.00
3/19/2014	512	870	See Sheet 2	See Sheet 3			1013.90	389.20	5.09	See Sheet 4	Not Available	1857.87	9.58	0.00	0.00	4.87	See Sheet 2	N/A	6.70	3.00
3/20/2014	2139	3632	See Sheet 2	See Sheet 3			884.89	418.62	4.70	See Sheet 4	Not Available	1888.97	10.95	0.00	0.00	7.58	See Sheet 2	N/A	24.00	24.00
3/21/2014	2153	3656	See Sheet 2	See Sheet 3			980.55	465.60	5.19	See Sheet 4	Not Available	1875.45	10.89	0.00	0.00	6.07	See Sheet 2	N/A	24.00	23.00
3/22/2014	2262	3842	See Sheet 2	See Sheet 3			1112.11	537.99	5.71	See Sheet 4	Not Available	1911.67	11.47	0.00	0.00	5.41	See Sheet 2	N/A	24.00	24.00
3/23/2014	2254	3828	See Sheet 2	See Sheet 3			1163.97	563.76	6.00	See Sheet 4	Not Available	1871.00	11.93	0.00	0.00	5.92	See Sheet 2	N/A	24.00	24.00
3/24/2014	2238	3800	See Sheet 2	See Sheet 3			1067.68	516.17	5.54	See Sheet 4	Not Available	1871.17	12.39	0.00	0.00	5.93	See Sheet 2	N/A	24.00	24.00
3/25/2014	2296	3899	See Sheet 2	See Sheet 3			1063.17	513.62	5.37	See Sheet 4	Not Available	1915.91	12.29	0.00	0.00	5.48	See Sheet 2	N/A	24.00	24.00
3/26/2014	2428	4124	See Sheet 2	See Sheet 3			1054.34	530.97	5.25	See Sheet 4	Not Available	1920.17	11.75	0.00	0.00	5.77	See Sheet 2	N/A	24.00	24.00
3/27/2014	2222	3773	See Sheet 2	See Sheet 3			972.91	470.69	5.08	See Sheet 4	Not Available	1888.35	10.98	0.00	0.00	7.19	See Sheet 2	N/A	24.00	24.00
3/27/2014	2274	3862	See Sheet 2	See Sheet 3			1010.61	487.46	5.15	See Sheet 4	Not Available	1871.77	10.93	0.00	0.00	6.62	See Sheet 2	N/A	24.00	24.00
3/29/2014	2387	4054	See Sheet 2	See Sheet 3			1041.35	512.86	5.16	See Sheet 4	Not Available	1869.23	10.00	0.00	0.00	7.12	See Sheet 2	N/A	24.00	24.00
3/30/2014	2375	4033	See Sheet 2	See Sheet 3			1090.57	540.17	5.46	See Sheet 4	Not Available	1890.80	11.35	0.00	0.00	6.21	See Sheet 2	N/A	24.00	24.00
3/31/2014	2349	3989	See Sheet 2	See Sheet 3			1117.97	538.98	5.51	See Sheet 4	Not Available	1913.57	11.32	0.00	0.00	6.15	See Sheet 2	N/A	24.00	24.00
4/1/2014	2410	4093	See Sheet 2	See Sheet 3			1094.27	532.38	5.30	See Sheet 4	Not Available	1915.64	11.50	0.00	0.00	7.45	See Sheet 2	N/A	24.00	24.00
4/2/2014	2295	3898	See Sheet 2	See Sheet 3			968.02	468.43	4.90	See Sheet 4	Not Available	1863.84	11.07	0.00	0.00	8.51	See Sheet 2	N/A	24.00	24.00
4/3/2014	1780	3024	See Sheet 2	See Sheet 3			866.60	237.65	2.72	See Sheet 4	Not Available	1836.08	10.16	0.00	0.00	8.94	See Sheet 2	N/A	20.38	12.00
4/4/2014	2204	3743	Invalid NOx Data															Sample Leaks	24.00	0.00
4/5/2014	2193	3725	Invalid NOx Data															Sample Leaks	24.00	0.00
4/6/2014	2322	3943	Invalid NOx Data															Sample Leaks	24.00	0.00
4/7/2014	2322	3943	Invalid NOx Data															Sample Leaks	24.00	0.00
4/8/2014	744	1263	Invalid NOx Data															Sample Leaks	9.97	0.00
4/9/2014	2204	3744	Invalid NOx Data															Sample Leaks	24.00	0.00
4/10/2014	2182	3706	See Sheet 2	See Sheet 3			1457.16	660.07	7.26	See Sheet 4	Not Available	1945.10	10.66	0.00	0.00	2.46	See Sheet 2	N/A	24.00	13.00
4/11/2014	2103	3572	See Sheet 2	See Sheet 3			1407.65	689.07	7.40	See Sheet 4	Not Available	1932.06	11.39	0.00	0.00	2.44	See Sheet 2	N/A	22.60	21.00
4/12/2014	2277	3867	See Sheet 2	See Sheet 3			1284.38	630.77	6.37	See Sheet 4	Not Available	1896.66	11.30	0.00	0.00	2.98	See Sheet 2	N/A	23.00	23.00
4/13/2014	2186	3713	See Sheet 2	See Sheet 3			1375.83	639.15	7.02	See Sheet 4	Not Available	1863.76	10.68	0.00	0.00	3.04	See Sheet 2	N/A	24.00	23.00

4/14/2014	1271	2159	See Sheet 2	See Sheet 3	1197.48	502.49	6.44	See Sheet 4	Not Available	1884.83	9.56	0.00	0.00	3.71	See Sheet 2	N/A	16.30	15.00
4/15/2014	1911	3246	See Sheet 2	See Sheet 3	1496.92	624.26	7.84	See Sheet 4	Not Available	1817.73	9.48	0.00	0.00	2.75	See Sheet 2	N/A	24.00	14.00
4/16/2014	2240	3805	See Sheet 2	See Sheet 3	1375.61	647.87	6.94	See Sheet 4	Not Available	1970.15	9.77	0.00	0.00	2.41	See Sheet 2	N/A	24.00	19.00
4/17/2014	1952	3315	See Sheet 2	See Sheet 3	1322.45	646.65	6.42	See Sheet 4	Not Available	1985.87	10.17	0.00	0.00	2.87	See Sheet 2	N/A	19.38	19.00
4/18/2014	2222	3774	See Sheet 2	See Sheet 3	1229.75	607.66	6.17	See Sheet 4	Not Available	1865.91	11.56	0.00	0.00	2.43	See Sheet 2	N/A	22.57	17.00
4/19/2014	2394	4066	See Sheet 2	See Sheet 3	1209.52	604.25	6.06	See Sheet 4	Not Available	1913.13	11.61	0.00	0.00	2.45	See Sheet 2	N/A	24.00	24.00
4/20/2014	614	1043	See Sheet 2	See Sheet 3	1060.54	452.46	5.28	See Sheet 4	Not Available	1816.42	9.53	0.00	0.00	3.96	See Sheet 2	N/A	7.17	7.00
4/21-6/10/14	Kiln Down (April 21-June 10, 2014)																	
6/11/2014	0	0	No Kiln Production - Pre-heat Only													N/A	0.00	0.00
6/12/2014	116	197	Invalid NOx Data													Shutter Failure.	1.28	0.00
6/13/2014	1810	3074	See Sheet 2	See Sheet 3	1289.72	499.73	6.63	See Sheet 4	Not Available	1934.11	9.74	0.00	0.00	1.65	See Sheet 2	N/A	24.00	12.00
6/14/2014	920	1562	See Sheet 2	See Sheet 3	1252.52	541.30	7.13	See Sheet 4	Not Available	2517.27	10.18	0.00	0.00	1.48	See Sheet 2	N/A	12.12	10.00
6/15/2014	1988	3376	See Sheet 2	See Sheet 3	852.90	355.54	4.17	See Sheet 4	Not Available	1989.80	No Data	No Data	0.00	2.31	See Sheet 2	Process Data Logger Malfunct.	23.33	10.00
6/16/2014	2049	3480	See Sheet 2	See Sheet 3	1050.20	480.23	5.62	See Sheet 4	Not Available	1906.38	No Data	No Data	0.00	3.01	See Sheet 2	Process Data Logger Malfunct.	24.00	21.00
6/17/2014	2146	3645	See Sheet 2	See Sheet 3	1018.19	464.20	5.19	See Sheet 4	Not Available	2006.21	No Data	No Data	0.00	3.06	See Sheet 2	Process Data Logger Malfunct.	24.00	24.00
6/18/2014	2112	3587	See Sheet 2	See Sheet 3	1142.04	498.54	5.66	See Sheet 4	Not Available	1948.56	9.37	0.00	0.00	2.58	See Sheet 2	N/A	24.00	14.00
6/19/2014	2013	3418	See Sheet 2	See Sheet 3	1047.47	416.42	4.97	See Sheet 4	Not Available	1922.51	9.31	0.00	0.00	3.33	See Sheet 2	N/A	24.00	24.00
6/20/2014	2175	3694	See Sheet 2	See Sheet 3	1274.19	559.84	6.18	See Sheet 4	Not Available	1966.24	10.06	0.00	0.00	2.36	See Sheet 2	N/A	24.00	24.00
6/21/2014	1816	3084	See Sheet 2	See Sheet 3	1302.93	603.76	6.70	See Sheet 4	Not Available	1958.95	10.45	0.00	0.00	2.31	See Sheet 2	N/A	20.17	18.00
6/22/2014	2296	3899	See Sheet 2	See Sheet 3	1172.06	561.29	5.87	See Sheet 4	Not Available	1990.44	10.61	0.00	0.00	2.50	See Sheet 2	N/A	24.00	24.00
6/23/2014	2076	3526	See Sheet 2	See Sheet 3	1068.59	507.13	5.60	See Sheet 4	Not Available	2005.65	10.24	0.00	0.00	4.64	See Sheet 2	N/A	22.92	20.00
6/24/2014	996	1691	See Sheet 2	See Sheet 3	945.51	434.74	4.20	See Sheet 4	Not Available	1907.34	10.17	0.00	0.00	5.70	See Sheet 2	N/A	9.62	10.00
6/25/2014	2386	4052	See Sheet 2	See Sheet 3	921.62	431.20	4.34	See Sheet 4	Not Available	1994.81	10.38	0.00	0.00	5.66	See Sheet 2	N/A	24.00	24.00
6/26/2014	2386	4052	See Sheet 2	See Sheet 3	923.05	436.06	4.39	See Sheet 4	Not Available	1994.74	10.70	0.00	0.00	5.42	See Sheet 2	N/A	24.00	14.00
6/27/2014	2264	3846	See Sheet 2	See Sheet 3	1101.99	513.95	5.45	See Sheet 4	Not Available	1984.85	10.19	0.00	0.00	5.13	See Sheet 2	N/A	24.00	1.00
6/28/2014	2369	4023	Invalid NOx Data													Sample Leaks	24.00	0.00
6/29/2014	2398	4073	Invalid NOx Data													Sample Leaks	24.00	0.00
6/30/2014	2377	4036	See Sheet 2	See Sheet 3	954.73	469.24	4.74	See Sheet 4	Not Available	1920.67	10.51	0.00	0.00	1.87	See Sheet 2	N/A	24.00	15.00
7/1/2014	2113	3589	See Sheet 2	See Sheet 3	1065.25	487.75	5.54	See Sheet 4	Not Available	2015.19	9.69	0.00	0.00	2.33	See Sheet 2	N/A	24.00	24.00
7/2/2014	2309	3921	See Sheet 2	See Sheet 3	1131.81	542.55	5.64	See Sheet 4	Not Available	2011.39	10.23	0.00	0.00	2.24	See Sheet 2	N/A	24.00	15.00
7/3/2014	2249	3819	See Sheet 2	See Sheet 3	1121.98	540.35	5.77	See Sheet 4	Not Available	1971.18	10.26	0.00	0.00	2.17	See Sheet 2	N/A	24.00	24.00
7/4/2014	2044	3472	See Sheet 2	See Sheet 3	1076.32	470.25	5.52	See Sheet 4	Not Available	1996.94	9.31	0.00	0.00	1.76	See Sheet 2	N/A	24.00	24.00
7/5/2014	1192	2025	See Sheet 2	See Sheet 3	1162.96	501.62	6.49	See Sheet 4	Not Available	1924.00	9.25	0.00	0.00	1.67	See Sheet 2	N/A	15.42	12.00
7/6/2014	0	0	Kiln Down													N/A	0.00	0.00
7/7/2014	0	0	Kiln Down													N/A	0.00	0.00
7/8/2014	0	0	Kiln Down													N/A	0.00	0.00
7/9/2014	0	0	Kiln Down													N/A	0.00	0.00
7/10/2014	0	0	Kiln Down													N/A	0.00	0.00
7/11/2014	836	1420	See Sheet 2	See Sheet 3	1145.03	522.50	5.93	See Sheet 4	Not Available	1976.14	9.80	0.00	0.00	3.34	See Sheet 2	N/A	9.50	8.00
7/12/2014	2398	4073	See Sheet 2	See Sheet 3	1126.50	547.71	5.48	See Sheet 4	Not Available	1946.44	10.81	0.00	0.00	1.80	See Sheet 2	N/A	24.00	24.00
7/13/2014	183	310	See Sheet 2	See Sheet 3	1218.84	612.00	6.09	See Sheet 4	Not Available	1906.08	11.00	0.00	0.00	2.28	See Sheet 2	N/A	1.82	2.00
7/14/2014	171	291	Invalid NOx Data													Shutter Failure.	2.47	0.00
7/15/2014	2168	3682	Invalid NOx Data													Shutter Failure.	22.88	0.00
7/16/2014	2324	3947	See Sheet 2	See Sheet 3	1198.65	582.66	6.02	See Sheet 4	Not Available	2054.08	10.33	0.00	0.00	2.48	See Sheet 2	N/A	24.00	17.00
7/17/2014	1985	3371	See Sheet 2	See Sheet 3	1167.21	551.69	6.21	See Sheet 4	Not Available	1937.99	9.99	0.00	0.00	2.22	See Sheet 2	N/A	22.35	21.00
7/18/2014	1965	3338	See Sheet 2	See Sheet 3	1135.86	536.94	6.19	See Sheet 4	Not Available	1968.73	9.89	0.00	0.00	2.90	See Sheet 2	N/A	22.65	21.00
7/19/2014	2182	3706	See Sheet 2	See Sheet 3	1014.31	492.17	5.25	See Sheet 4	Not Available	1991.74	10.38	0.00	0.00	2.72	See Sheet 2	N/A	23.28	17.00
7/20/2014	2309	3921	See Sheet 2	See Sheet 3	1139.53	560.46	5.83	See Sheet 4	Not Available	1950.20	10.53	0.00	0.00	2.76	See Sheet 2	N/A	24.00	24.00
7/21/2014	1602	2721	See Sheet 2	See Sheet 3	1135.96	549.47	6.22	See Sheet 4	Not Available	1938.13	10.24	0.00	0.00	3.31	See Sheet 2	N/A	18.12	17.00
7/22/2014	2039	3463	See Sheet 2	See Sheet 3	1015.05	458.95	5.40	See Sheet 4	Not Available	1985.04	9.57	0.00	0.00	2.96	See Sheet 2	N/A	24.00	24.00
7/23/2014	950	1614	See Sheet 2	See Sheet 3	1030.69	464.86	6.08	See Sheet 4	Not Available	2052.62	9.58	0.00	0.00	3.01	See Sheet 2	N/A	12.43	11.00
7/24/2014	1801	3059	See Sheet 2	See Sheet 3	907.57	404.86	4.74	See Sheet 4	Not Available	1877.99	9.29	0.00	0.00	3.52	See Sheet 2	N/A	21.07	3.00
7/25/2014	1081	1836	See Sheet 2	See Sheet 3	944.15	461.09	5.69	See Sheet 4	Not Available	1905.35	7.96	0.00	0.00	4.34	See Sheet 2	N/A	13.33	1.00
7/26/2014	0	0	Kiln Down													N/A	0.00	0.00
7/27/2014	0	0	Kiln Down													N/A	0.00	0.00

7/28/2014	0	0	Kiln Down												N/A	0.00	0.00
7/29/2014	0	0	Kiln Down												N/A	0.00	0.00
7/30/2014	739	1255	See Sheet 2	See Sheet 3	1154.05	553.31	9.36	See Sheet 4	Not Available	2071.48	10.77	0.00	0.00	1.94	See Sheet 2	N/A	12.50	11.00
7/31/2014	1979	3361	See Sheet 2	See Sheet 3	1031.10	491.06	5.95	See Sheet 4	Not Available	1924.41	10.50	0.00	0.00	2.24	See Sheet 2	N/A	24.00	16.00
8/1/2014	2092	3553	See Sheet 2	See Sheet 3	1071.79	496.31	5.69	See Sheet 4	Not Available	1761.08	10.51	0.00	0.00	2.23	See Sheet 2	N/A	24.00	24.00
8/2/2014	2058	3495	See Sheet 2	See Sheet 3	991.38	468.22	5.46	See Sheet 4	Not Available	1679.71	10.27	0.00	0.00	2.74	See Sheet 2	N/A	24.00	24.00
8/3/2014	2122	3604	See Sheet 2	See Sheet 3	960.20	465.21	5.26	See Sheet 4	Not Available	1692.27	10.63	0.00	0.00	2.53	See Sheet 2	N/A	24.00	24.00
8/4/2014	2046	3474	See Sheet 2	See Sheet 3	917.86	407.02	4.78	See Sheet 4	Not Available	1971.41	10.33	0.00	0.00	3.31	See Sheet 2	N/A	24.00	24.00
8/5/2014	2172	3689	See Sheet 2	See Sheet 3	953.58	468.22	5.17	See Sheet 4	Not Available	2100.97	10.76	0.00	0.00	2.55	See Sheet 2	N/A	24.00	24.00
8/6/2014	613	1041	See Sheet 2	See Sheet 3	923.62	446.49	5.41	See Sheet 4	Not Available	2040.51	10.03	0.00	0.00	2.93	See Sheet 2	N/A	7.43	5.00
8/7/2014	2098	3563	See Sheet 2	See Sheet 3	998.66	486.97	5.57	See Sheet 4	Not Available	2111.39	10.65	0.00	0.00	2.85	See Sheet 2	N/A	24.00	9.00
8/8/2014	2050	3482	See Sheet 2	See Sheet 3	1100.23	521.04	6.10	See Sheet 4	Not Available	2151.63	10.49	0.00	0.00	2.44	See Sheet 2	N/A	24.00	24.00
8/9/2014	1996	3390	See Sheet 2	See Sheet 3	1165.93	537.70	6.47	See Sheet 4	Not Available	1995.00	10.04	0.00	0.00	2.84	See Sheet 2	N/A	24.00	24.00
8/10/2014	1812	3077	See Sheet 2	See Sheet 3	1146.79	482.70	6.39	See Sheet 4	Not Available	2023.38	9.34	0.00	0.00	2.42	See Sheet 2	N/A	24.00	24.00
8/11/2014	1315	2234	See Sheet 2	See Sheet 3	1185.27	497.65	6.65	See Sheet 4	Not Available	2050.10	9.35	0.00	0.00	2.30	See Sheet 2	N/A	17.58	17.00
8/12/2014	0	0	Kiln Down												N/A	0.00	0.00
8/13/2014	0	0	Kiln Down												N/A	0.00	0.00
8/14/2014	0	0	Kiln Down												N/A	0.00	0.00
8/15/2014	0	0	Kiln Down												N/A	0.00	0.00
8/16/2014	0	0	Kiln Down												N/A	0.00	0.00
8/17/2014	0	0	Kiln Down												N/A	0.00	0.00
8/18/2014	973	1653	See Sheet 2	See Sheet 3	888.63	381.51	5.28	See Sheet 4	Not Available	2024.69	9.37	0.00	0.00	2.33	See Sheet 2	N/A	13.47	11.00
8/19/2014	2031	3450	See Sheet 2	See Sheet 3	1059.42	501.45	5.93	See Sheet 4	Not Available	2104.56	10.57	0.00	0.00	1.69	See Sheet 2	N/A	24.00	22.00
8/20/2014	2139	3633	See Sheet 2	See Sheet 3	1090.69	528.30	5.93	See Sheet 4	Not Available	2124.35	10.81	0.00	0.00	1.97	See Sheet 2	N/A	24.00	24.00
8/21/2014	2035	3457	See Sheet 2	See Sheet 3	1100.32	522.67	6.16	See Sheet 4	Not Available	2033.05	10.45	0.00	0.00	2.70	See Sheet 2	N/A	24.00	21.00
8/22/2014	1252	2127	See Sheet 2	See Sheet 3	1168.97	554.73	6.61	See Sheet 4	Not Available	1983.12	10.29	0.00	0.00	2.88	See Sheet 2	N/A	14.92	14.00
8/23/2014	0	0	Kiln Down												N/A	0.00	0.00
8/24/2014	0	0	Kiln Down												N/A	0.00	0.00
8/25/2014	0	0	Kiln Down												N/A	0.00	0.00
8/26/2014	0	0	Kiln Down												N/A	0.00	0.00
8/27/2014	0	0	Kiln Down												N/A	0.00	0.00
8/28/2014	784	1332	Invalid NOx Data												High Water Temperature	10.68	0.00
8/29/2014	2175	3694	See Sheet 2	See Sheet 3	1289.35	615.51	6.79	See Sheet 4	Not Available	2045.38	10.89	0.00	0.00	1.86	See Sheet 2	N/A	24.00	7.00
8/30/2014	2143	3640	Invalid NOx Data												High Water Temperature	24.00	0.00
8/31/2014	2049	3479	See Sheet 2	See Sheet 3	1158.10	562.21	6.59	See Sheet 4	Not Available	1961.26	11.25	0.00	0.00	2.17	See Sheet 2	N/A	24.00	1.00
9/1/2014	2049	3479	Invalid NOx Data												High Water Temperature	24.00	0.00
9/2/2014	1152	1956	See Sheet 2	See Sheet 3	1150.43	557.40	6.45	See Sheet 4	Not Available	1980.92	10.48	0.00	0.00	1.78	See Sheet 2	N/A	13.33	3.00
9/3/2014	1793	3045	See Sheet 2	See Sheet 3	1225.98	602.83	7.55	See Sheet 4	Not Available	2028.46	11.11	0.00	0.00	1.85	See Sheet 2	N/A	22.45	1.00
9/4/2014	2049	3479	See Sheet 2	See Sheet 3	1242.53	596.83	6.99	See Sheet 4	Not Available	1979.48	151.25	0.00	0.00	2.59	See Sheet 2	N/A	24.00	13.00
9/5/2014	2076	3525	See Sheet 2	See Sheet 3	1043.93	520.45	6.02	See Sheet 4	Not Available	1954.27	10.26	0.00	0.00	2.32	See Sheet 2	N/A	24.00	24.00
9/6/2014	2089	3547	See Sheet 2	See Sheet 3	1003.06	492.35	5.66	See Sheet 4	Not Available	2004.26	9.84	0.00	0.00	2.05	See Sheet 2	N/A	24.00	24.00
9/7/2014	2070	3516	See Sheet 2	See Sheet 3	1176.76	570.88	6.62	See Sheet 4	Not Available	1949.81	10.30	0.00	0.00	2.03	See Sheet 2	N/A	24.00	24.00
9/8/2014	2087	3545	See Sheet 2	See Sheet 3	1150.79	548.81	6.31	See Sheet 4	Not Available	1967.90	10.54	0.00	0.00	1.87	See Sheet 2	N/A	24.00	24.00
9/9/2014	1988	3376	See Sheet 2	See Sheet 3	1240.28	583.47	7.05	See Sheet 4	Not Available	1984.65	10.20	0.00	0.00	2.37	See Sheet 2	N/A	24.00	24.00
9/10/2014	1285	2182	See Sheet 2	See Sheet 3	1209.17	567.75	7.26	See Sheet 4	Not Available	1983.39	10.09	0.00	0.00	2.78	See Sheet 2	N/A	16.42	14.00
9/11/2014	1905	3236	See Sheet 2	See Sheet 3	1099.97	497.74	6.27	See Sheet 4	Not Available	2009.49	9.35	0.30	0.00	2.54	See Sheet 2	N/A	24.00	24.00
9/12/2014	1643	2790	See Sheet 2	See Sheet 3	1037.00	473.40	6.25	See Sheet 4	Not Available	1946.40	8.80	0.41	0.00	3.04	See Sheet 2	N/A	21.70	21.00
9/13/2014	0	0	Kiln Down												N/A	0.00	0.00
9/14/2014	0	0	Kiln Down												N/A	0.00	0.00
9/15/2014	0	0	Kiln Down												N/A	0.00	0.00
9/16/2014	0	0	Kiln Down												N/A	0.00	0.00
9/17/2014	0	0	Kiln Down												N/A	0.00	0.00
9/18/2014	546	927	See Sheet 2	See Sheet 3	1275.87	573.69	8.18	See Sheet 4	Not Available	1835.31	9.68	0.00	0.00	2.94	See Sheet 2	N/A	7.78	6.00
9/19/2014	2039	3463	See Sheet 2	See Sheet 3	1273.32	588.32	6.93	See Sheet 4	Not Available	1949.02	10.22	0.00	0.00	2.74	See Sheet 2	N/A	24.00	24.00
9/20/2014	1820	3091	See Sheet 2	See Sheet 3	1268.75	558.33	7.36	See Sheet 4	Not Available	1899.34	9.75	0.00	0.00	2.77	See Sheet 2	N/A	24.00	22.00

9/21/2014	2094	3557	See Sheet 2	See Sheet 3	1006.70	488.04	5.59	See Sheet 4	Not Available	2008.14	8.24	1.19	0.00	2.29	See Sheet 2	N/A	24.00	24.00
9/22/2014	2045	3473	See Sheet 2	See Sheet 3	996.05	486.17	5.71	See Sheet 4	Not Available	1961.54	8.42	1.06	0.00	2.20	See Sheet 2	N/A	24.00	24.00
9/23/2014	1776	3017	See Sheet 2	See Sheet 3	1036.98	484.75	6.20	See Sheet 4	Not Available	1952.29	8.15	0.92	0.00	2.79	See Sheet 2	N/A	22.72	21.00
9/24/2014	1049	1782	See Sheet 2	See Sheet 3	1050.07	500.30	6.39	See Sheet 4	Not Available	1933.24	9.47	0.49	0.00	3.12	See Sheet 2	N/A	13.40	11.00
9/25/2014	1540	2615	See Sheet 2	See Sheet 3	899.05	431.70	5.40	See Sheet 4	Not Available	1972.22	8.26	1.07	0.00	2.60	See Sheet 2	N/A	19.27	16.00
9/26/2014	2155	3660	See Sheet 2	See Sheet 3	1029.45	511.06	5.69	See Sheet 4	Not Available	2017.73	7.49	1.71	0.00	2.18	See Sheet 2	N/A	24.00	24.00
9/27/2014	2062	3502	See Sheet 2	See Sheet 3	1120.47	550.77	6.41	See Sheet 4	Not Available	1978.70	9.15	0.74	0.00	2.69	See Sheet 2	N/A	24.00	22.00
9/28/2014	1965	3338	See Sheet 2	See Sheet 3	1092.39	512.24	6.26	See Sheet 4	Not Available	2012.67	8.45	0.59	0.00	2.87	See Sheet 2	N/A	24.00	22.00
9/29/2014	2198	3733	See Sheet 2	See Sheet 3	927.26	463.04	5.06	See Sheet 4	Not Available	2042.41	7.45	1.50	0.00	2.90	See Sheet 2	N/A	24.00	24.00
9/30/2014	2079	3531	See Sheet 3	See Sheet 4	1041.33	502.08	5.80	See Sheet 5	Not Available	1991.80	6.87	1.64	0.00	2.92	See Sheet 2	N/A	24.00	24.00
10/1/2014	2184	3709	See Sheet 2	See Sheet 3	963.13	477.76	5.25	See Sheet 4	Not Available	1970.28	6.81	1.95	0.00	2.34	See Sheet 2	N/A	24.00	24.00
10/2/2014	2132	3620	See Sheet 2	See Sheet 3	899.29	444.08	5.00	See Sheet 4	Not Available	1975.48	6.74	2.08	0.00	2.39	See Sheet 2	N/A	24.00	24.00
10/3/2014	789	1340	See Sheet 2	See Sheet 3	962.84	473.67	5.51	See Sheet 4	Not Available	1961.36	6.62	1.97	0.00	2.37	See Sheet 2	N/A	9.17	9.00
10/4/2014	1330	2258	See Sheet 2	See Sheet 3	1172.00	566.29	7.21	See Sheet 4	Not Available	1917.82	10.50	0.00	0.00	2.87	See Sheet 2	N/A	16.92	13.00
10/5/2014	2230	3787	See Sheet 2	See Sheet 3	1084.88	547.29	5.89	See Sheet 4	Not Available	2069.06	10.94	0.00	0.00	2.24	See Sheet 2	N/A	24.00	24.00
10/6/2014	2162	3671	See Sheet 2	See Sheet 3	1198.17	592.48	6.58	See Sheet 4	Not Available	1983.65	10.59	0.00	0.00	2.55	See Sheet 2	N/A	24.00	22.00
10/7/2014	1994	3386	See Sheet 2	See Sheet 3	1149.20	547.20	6.59	See Sheet 4	Not Available	1947.42	10.16	0.00	0.00	2.84	See Sheet 2	N/A	24.00	22.00
10/8/2014	2218	3767	See Sheet 2	See Sheet 3	1282.41	646.36	6.99	See Sheet 4	Not Available	1949.58	11.03	0.00	0.00	2.52	See Sheet 2	N/A	24.00	24.00
10/9/2014	1924	3268	See Sheet 2	See Sheet 3	1239.43	618.16	6.80	See Sheet 4	Not Available	1905.18	10.66	0.00	0.00	3.19	See Sheet 2	N/A	21.17	17.00
10/10/2014	2324	3947	See Sheet 2	See Sheet 3	1169.18	569.34	5.88	See Sheet 4	Not Available	1953.03	10.56	0.00	0.00	2.98	See Sheet 2	N/A	24.00	23.00
10/11/2014	2580	4383	See Sheet 2	See Sheet 3	1264.97	643.18	5.98	See Sheet 4	Not Available	2004.08	11.27	0.00	0.00	2.31	See Sheet 2	N/A	24.00	24.00
10/12/2014	800	1359	See Sheet 2	See Sheet 3	1236.34	633.12	7.04	See Sheet 4	Not Available	2044.40	11.45	0.00	0.00	2.15	See Sheet 2	N/A	8.90	6.00
10/13/2014	2360	4008	See Sheet 2	See Sheet 3	1142.86	560.18	5.70	See Sheet 4	Not Available	1910.54	10.71	0.00	0.00	2.70	See Sheet 2	N/A	24.00	24.00
10/14/2014	1473	2501	See Sheet 2	See Sheet 3	1155.78	552.29	6.36	See Sheet 4	Not Available	1960.93	10.29	0.00	0.00	2.27	See Sheet 2	N/A	16.97	10.00
10/15/2014	2352	3994	See Sheet 2	See Sheet 3	1334.03	645.66	6.59	See Sheet 4	Not Available	1967.97	10.48	0.00	0.00	2.77	See Sheet 2	N/A	24.00	24.00
10/16/2014	2296	3899	See Sheet 2	See Sheet 3	1439.98	696.02	7.28	See Sheet 4	Not Available	1990.52	10.33	0.00	0.00	2.08	See Sheet 2	N/A	24.00	24.00
10/17/2014	2356	4001	See Sheet 2	See Sheet 3	1190.60	576.15	5.87	See Sheet 4	Not Available	2120.72	10.38	0.00	0.00	2.52	See Sheet 2	N/A	24.00	24.00
10/18/2014	431	732	See Sheet 2	See Sheet 3	1175.80	567.95	6.09	See Sheet 4	Not Available	2039.12	10.33	0.00	0.00	2.72	See Sheet 2	N/A	4.62	4.00
10/19/2014	249	423	See Sheet 2	See Sheet 3	1174.56	540.00	7.49	See Sheet 4	Not Available	1910.34	9.45	0.00	0.00	2.83	See Sheet 2	N/A	3.45	2.00
10/20/2014	176	298	Invalid NOx Data													Flow Meter Malfunction	3.87	0.00
10/21/2014	1604	2724	See Sheet 2	See Sheet 3	1053.21	486.32	6.47	See Sheet 4	Not Available	1957.02	10.40	0.00	0.00	2.43	See Sheet 2	N/A	21.33	1.00
10/22/2014	2356	4001	See Sheet 2	See Sheet 3	1071.12	524.10	5.34	See Sheet 4	Not Available	1987.52	10.86	0.00	0.00	3.06	See Sheet 2	N/A	24.00	14.00
10/23/2014	1309	2223	See Sheet 2	See Sheet 3	1096.56	539.80	5.86	See Sheet 4	Not Available	2015.24	11.03	0.00	0.00	2.69	See Sheet 2	N/A	14.20	6.00
10/24/2014	2403	4080	See Sheet 2	See Sheet 3	1119.58	551.79	5.51	See Sheet 4	Not Available	2067.93	10.97	0.00	0.00	2.64	See Sheet 2	N/A	24.00	4.00
10/25/2014	1734	2946	Invalid NOx Data													Shutter Failure.	18.68	0.00
10/26/2014	0	0	Kiln Down													N/A	0.00	0.00
10/27/2014	0	0	Kiln Down													N/A	0.00	0.00
10/28/2014	1491	2533	See Sheet 2	See Sheet 3	1003.39	477.85	5.23	See Sheet 4	Not Available	1993.07	9.39	0.69	0.00	3.14	See Sheet 2	N/A	16.32	14.00
10/29/2014	2479	4209	See Sheet 2	See Sheet 3	920.07	467.35	4.53	See Sheet 4	Not Available	2018.98	7.90	1.58	0.00	3.16	See Sheet 2	N/A	24.00	24.00
10/30/2014	2404	4082	See Sheet 2	See Sheet 3	823.05	416.35	4.16	See Sheet 4	Not Available	2014.97	6.10	2.61	0.00	3.26	See Sheet 2	N/A	24.00	23.00
10/31/2014	2425	4118	See Sheet 2	See Sheet 3	882.89	437.06	4.33	See Sheet 4	Not Available	2076.72	7.46	2.04	0.00	3.38	See Sheet 2	N/A	24.00	24.00
11/1/2014	2263	3843	See Sheet 2	See Sheet 3	929.68	464.79	4.93	See Sheet 4	Not Available	1998.14	8.15	2.18	0.00	3.52	See Sheet 2	N/A	24.00	24.00
11/2/2014	1913	3249	See Sheet 2	See Sheet 3	813.08	408.08	4.30	See Sheet 4	Not Available	2000.35	11.69	0.00	0.00	8.18	See Sheet 2	N/A	20.17	20.00
11/3/2014	717	1219	Invalid NOx Data													Low Water Flow Alarm	9.33	0.00
11/4/2014	2208	3751	Invalid NOx Data													Low Water Flow Alarm	24.00	0.00
11/5/2014	2016	3423	Invalid NOx Data													Low Water Flow Alarm	23.08	0.00
11/6/2014	1187	2016	See Sheet 2	See Sheet 3	980.02	476.44	5.91	See Sheet 4	Not Available	2072.37	8.84	0.91	0.00	2.17	See Sheet 2	N/A	14.72	7.00
11/7/2014	1084	1841	See Sheet 2	See Sheet 3	1229.52	635.16	7.57	See Sheet 4	Not Available	2020.91	9.40	0.81	0.00	1.64	See Sheet 2	N/A	12.92	6.00
11/8/2014	2136	3628	See Sheet 2	See Sheet 3	1008.36	521.59	5.86	See Sheet 4	Not Available	1980.99	7.06	2.48	0.00	2.11	See Sheet 2	N/A	24.00	24.00
11/9/2014	2186	3713	See Sheet 2	See Sheet 3	869.46	446.76	4.90	See Sheet 4	Not Available	1994.79	6.99	2.42	0.00	2.22	See Sheet 2	N/A	24.00	24.00
11/10/2014	1045	1775	See Sheet 2	See Sheet 3	875.01	428.80	5.44	See Sheet 4	Not Available	1984.29	8.93	0.44	0.00	2.64	See Sheet 2	N/A	13.25	9.00
11/11/2014	0	0	Kiln Down													N/A	0.00	0.00
11/12/2014	0	0	Kiln Down													N/A	0.00	0.00
11/13/2014	0	0	Kiln Down													N/A	0.00	0.00
11/14/2014	0	0	Kiln Down													N/A	0.00	0.00

11/15/2014	310	526	See Sheet 2	See Sheet 3	936.30	385.14	5.69	See Sheet 4	Not Available	1825.87	9.53	0.00	0.00	2.07	See Sheet 2	N/A	4.58	4.00
11/16/2014	2279	3870	See Sheet 2	See Sheet 3	1099.47	452.27	4.76	See Sheet 4	Not Available	1916.59	11.11	0.00	0.00	2.63	See Sheet 2	N/A	24.00	24.00
11/17/2014	2397	4072	See Sheet 2	See Sheet 3	1078.39	527.31	5.28	See Sheet 4	Not Available	1951.31	10.27	0.59	0.00	1.96	See Sheet 2	N/A	24.00	23.00
11/18/2014	2345	3983	See Sheet 2	See Sheet 3	837.91	415.64	4.25	See Sheet 4	Not Available	1930.10	8.04	2.01	0.00	1.78	See Sheet 2	N/A	24.00	24.00
11/19/2014	2333	3962	See Sheet 2	See Sheet 3	778.68	378.90	3.90	See Sheet 4	Not Available	1961.38	8.55	1.68	0.00	1.75	See Sheet 2	N/A	24.00	23.00
11/20/2014	2257	3834	See Sheet 2	See Sheet 3	822.02	407.66	4.33	See Sheet 4	Not Available	1973.12	9.26	0.83	0.00	1.97	See Sheet 2	N/A	24.00	20.00
11/21/2014	2305	3915	See Sheet 2	See Sheet 3	817.78	396.46	4.13	See Sheet 4	Not Available	1978.40	10.09	0.59	0.00	2.26	See Sheet 2	N/A	24.00	23.00
11/22/2014	2309	3921	See Sheet 2	See Sheet 3	904.28	431.79	4.49	See Sheet 4	Not Available	1959.11	9.77	0.70	0.00	1.84	See Sheet 2	N/A	24.00	23.00
11/23/2014	2017	3425	See Sheet 2	See Sheet 3	1211.36	521.74	6.21	See Sheet 4	Not Available	1788.53	9.61	0.16	0.00	2.52	See Sheet 2	N/A	24.00	24.00
11/24/2014	2066	3509	See Sheet 2	See Sheet 3	1162.66	521.98	6.06	See Sheet 4	Not Available	1694.67	7.76	1.53	1.20	2.58	See Sheet 2	N/A	24.00	23.00
11/25/2014	1908	3241	See Sheet 2	See Sheet 3	1101.72	512.44	5.94	See Sheet 4	Not Available	1714.89	8.47	1.17	0.00	3.36	See Sheet 2	N/A	22.10	21.00
11/26/2014	2381	4045	See Sheet 2	See Sheet 3	944.12	465.72	4.69	See Sheet 4	Not Available	1836.52	7.81	1.86	0.00	2.72	See Sheet 2	N/A	24.00	24.00
11/27/2014	1758	2986	See Sheet 2	See Sheet 3	1069.88	520.00	5.72	See Sheet 4	Not Available	1739.17	9.01	0.61	0.00	3.35	See Sheet 2	N/A	19.33	11.00
11/28/2014	2307	3918	See Sheet 2	See Sheet 3	921.50	441.99	4.60	See Sheet 4	Not Available	1679.14	9.58	0.76	0.00	2.19	See Sheet 2	N/A	24.00	23.00
11/29/2014	2247	3817	See Sheet 2	See Sheet 3	838.26	395.84	4.23	See Sheet 4	Not Available	1816.77	9.75	0.77	0.00	2.24	See Sheet 2	N/A	24.00	23.00
11/30/2014	2183	3708	See Sheet 2	See Sheet 3	814.53	379.04	4.17	See Sheet 4	Not Available	1871.53	8.75	1.08	0.00	2.69	See Sheet 2	N/A	24.00	24.00
12/1/2014	2323	3945	See Sheet 2	See Sheet 3	912.66	444.78	4.60	See Sheet 4	Not Available	1963.54	9.07	1.38	0.00	1.82	See Sheet 2	N/A	24.00	23.00
12/2/2014	1847	3136	See Sheet 2	See Sheet 3	1014.01	458.64	5.20	See Sheet 4	Not Available	1953.59	11.28	0.00	0.00	2.63	See Sheet 2	N/A	20.92	17.00
12/3/2014	2250	3822	See Sheet 2	See Sheet 3	934.27	439.53	4.69	See Sheet 4	Not Available	1973.81	11.24	0.21	0.00	1.92	See Sheet 2	N/A	24.00	24.00
12/4/2014	0	0	Kiln Down													N/A	0.00	0.00
12/5/2014	1277	2170	See Sheet 2	See Sheet 3	1035.86	460.46	6.01	See Sheet 4	Not Available	1934.23	9.79	0.22	0.00	3.17	See Sheet 2	N/A	16.67	16.00
12/6/2014	2177	3698	See Sheet 2	See Sheet 3	846.41	406.35	4.48	See Sheet 4	Not Available	1970.03	8.83	1.03	0.00	2.78	See Sheet 2	N/A	24.00	24.00

(1) Dragon does not monitor "burning zone temperature." The closest temperature monitor to the burning zone is located at the kiln feed shelf (See Condition 5.c.ciii).

(2) Dragon does not monitor kiln, kiln back end, or feed shelf oxygen. Data provided for this condition represents oxygen monitored located at the calciner.

ATTACHMENT 2

Dragon Products Company, LLC

Raw Mill Status and Startup, Shut-down, and Malfunction Logs

Dragon Products Company, LLC
USEPA and Dragon Products Company, LLC
Consent Agreement and Final Order
Attachment I: Condition 5: Baseline Data Collection
Daily Data Summaries

Sheet 2: Raw Mill Status and Kiln Startup, Shut-down, and Malfunction Logs

DATE	KILN							RAW MILL		
	Start up Start	Start up End	Shut down start	Shut down end	Malf. Start	Malf. End	REASON	UP	DOWN	REASON
3/5/2014										
3/6/2014									09:43:11	Maintenance to the R315 belt scraper.
3/6/2014								09:58:07	13:09:25	Vibration.
3/6/2014								13:16:22	13:16:41	502 motion.
3/6/2014			13:44:59	16:30:26			Clinker breaker shut down due to chunks.			
3/6/2014							Kiln down.	14:55:14	15:17:25	Vibration.
3/6/2014	16:30:26	17:38:32						17:48:02		
3/7/2014										
3/8/2014									14:40:52	The 509 fan shut down. Error code on rtd#3
3/8/2014								15:29:13		
3/9/2014									01:19:58	Blend silo full.
3/9/2014								04:43:59		
3/10/2014									14:55:42	Planned maintenance day.
3/10/2014								15:14:14		
3/11/2014									04:38:05	Planned maintenance day.
3/11/2014								04:43:37	04:48:29	Spinning table off.
3/11/2014								18:44:09	21:28:27	Exit temperatures, Lost flow from the pfister feeder.
3/11/2014								21:57:51		
3/12/2014										
3/13/2014									00:31:32	Vibration and feeder plugged
3/13/2014								00:45:38	00:47:16	Vibration.
3/13/2014								01:09:11		
3/13/2014			07:50:32	08:50:32			Maintenance on clinker breaker.			
3/13/2014							Kiln down.		08:01:01	Maintenance on clinker breaker.
3/13/2014	13:07:52	15:07:52								
3/13/2014								13:53:13	17:34:14	Vibration.
3/13/2014								17:38:55	23:02:35	Vibration.
3/13/2014								23:09:09	23:16:15	Vibration.
3/13/2014								23:33:41		
3/14/2014										

3/15/2014			01:41:30	02:00:09						The 820A airslide plugged. Lost kiln feed.
3/15/2014	02:00:09	03:15:20								
3/15/2014									02:04:04	Vibration.
3/15/2014								02:12:04		
3/16/2014									08:13:04	Blend Silo full.
3/16/2014								10:13:19	18:28:28	Rock feeders plugged and posimetric feeder flushed.
3/16/2014								19:24:35	19:26:02	High amps.
3/16/2014								20:59:39	20:59:53	Mill overloaded.
3/16/2014								21:13:27	21:13:32	Mill overloaded.
3/16/2014								22:03:31	22:03:32	Mill overloaded.
3/16/2014								22:06:28	22:06:29	Mill overloaded.
3/16/2014								22:17:07	22:17:08	Mill overloaded.
3/16/2014								23:07:23	23:07:24	Mill overloaded.
3/17/2014								03:40:55	03:41:01	Mill overloaded.
3/17/2014								04:42:49	04:42:55	Mill overloaded.
3/17/2014								04:43:52	04:43:59	Mill overloaded.
3/17/2014								05:02:29	05:02:33	Mill overloaded.
3/17/2014								05:16:04	05:24:04	Mill overloaded.
3/17/2014								14:30:33	14:38:10	The R513 shut down on alignment.
3/17/2014								14:53:46	14:56:02	The 'R315 plugged.
3/17/2014								16:24:20	16:39:41	The R507A cyclone rotary feeder tripped on overload.
3/17/2014								17:36:12		
3/18/2014										
3/18/2014									23:40:02	Preventative maintenance on the R315 belt.
3/18/2014								23:46:01		
3/19/2014			03:08:14	04:08:14			Down for maintenance.			
3/19/2014									03:18:59	Down for maintenance.
3/19/2014								03:26:11	03:35:29	Spinning table off.
3/19/2014								04:23:44	04:24:15	Spinning table off.
3/19/2014	20:24:59	21:39:29						21:13:52	21:25:23	The R508A cyclone rotary feeder shut down.
3/19/2014								22:28:02		
3/20/2014									17:18:00	Vibration.
3/20/2014								17:23:53		
3/21/2014									07:06:34	The 513 elevator shut down.
3/21/2014								07:15:32	15:05:01	Ran out of iron.
3/21/2014								15:26:29		
3/22/2014										
3/23/2014									15:06:07	Vibration due to multiple feeder starvations.
3/23/2014								15:27:05		
3/24/2014									14:00:46	Vibration due to starvation.
3/24/2014								14:20:01	22:29:56	Blend silo full.
3/25/2014								00:00:20	05:22:21	Vibration.
3/25/2014								05:25:45	05:30:26	Build up on 315 scraper.
3/25/2014								05:49:57	07:15:15	Down for environmental stack testing.

3/25/2014								09:02:53	13:26:04	Down for environmental stack testing.
3/25/2014								16:01:51	16:03:15	Down for environmental stack testing.
3/25/2014								17:18:19	19:06:46	Vibration.
3/25/2014								19:14:43		
3/26/2014									18:15:09	Day crew safety meeting.
3/26/2014								18:31:33		
3/27/2014									11:25:31	Blend silo full.
3/27/2014								14:09:44	21:29:20	Blend silo full.
3/27/2014								23:55:21		
3/28/2014									02:41:50	Vibration. Feeders hanging up.
3/28/2014								03:04:38		
3/29/2014									23:38:29	Blend silo full.
3/30/2014								01:40:48	08:32:57	Starvation silos 1 &2.
3/30/2014								09:21:11		
3/31/2014									09:23:05	Clean up around 315.
3/31/2014								10:15:37	23:05:53	The 513 elevator shut down and the blend silo is full.
3/31/2014								23:37:35		
4/1/2014									06:32:12	Blend silo full.
4/1/2014								09:36:23		
4/2/2014									07:51:32	Maintenance working on the R455.
4/2/2014								13:16:15		
4/3/2014									04:04:55	Went down on vibration. High temperature from kiln being slowed down.
4/3/2014								04:17:38	05:38:54	Kiln going down.
4/3/2014			05:32:00	07:12:02			Clinker breaker has loose bolts on non-drive end.			
4/3/2014	07:12:02	08:20:02								
								07:40:44		
4/3/2014									13:09:53	Kiln going down.
4/3/2014			13:03:09	14:59:13						Clinker breaker tripped.
4/3/2014	14:59:13	16:00:43								
4/3/2014								15:23:24		
4/3/2014									20:17:50	Blend silo full.
4/3/2014								21:31:16		
4/4/2014									05:58:35	Maintenance day.
4/4/2014								06:32:35	06:36:14	Spinning off table.
4/4/2014								16:54:22	22:50:44	Unknown.
4/4/2014								22:55:44	23:19:23	Thrust pad low pressure.
4/4/2014								23:29:06	23:36:52	Thrust pad low pressure.
4/5/2014								00:26:45	20:54:01	R502 pull cord.
4/5/2014								21:01:16		
4/6/2014										
4/7/2014									09:07:16	Shutting down the kiln.
4/7/2014			08:59:44	09:59:44			Maintenance on the coal mill.			

4/7/2014	13:07:17	14:39:38								
4/7/2014										
4/7/2014										
4/7/2014										
4/7/2014										
4/7/2014										
4/7/2014								14:01:16	23:27:40	Shutting down kiln.
4/7/2014			23:19:28				Broken shaft on lower roll of tripper cart.			
4/8/2014				00:19:28						
4/8/2014	13:53:30	15:53:30						19:30:54		
4/8/2014									19:35:00	Head and tail alignment.
4/8/2014								20:06:39		
4/9/2014									04:49:05	Pull cord on 502 reject belt.
4/9/2014								04:59:41	08:18:59	Maintenance.
4/9/2014								08:21:42	08:26:37	Running out the mill.
4/9/2014								10:17:02		
4/10/2014									05:39:14	Maintenance.
4/10/2014								12:25:26	16:31:49	Pull cord on 502 reject belt.
4/10/2014								16:38:46		
4/11/2014									02:14:17	Vibration.
4/11/2014								02:16:59	13:35:45	Blend silo elevator.
4/11/2014								14:17:03		
4/11/2014			21:27:04				Chunk in clinker breaker.			
4/12/2014				00:00:42						
4/12/2014	00:00:42	01:36:12								
4/12/2014								00:26:31	05:36:32	The R513 shut down.
4/12/2014								05:59:09	13:08:11	Vibration.
4/12/2014								13:28:21		
4/13/2014									12:44:52	The R513 elevator tracking off and wearing thru housing.
4/14/2014								04:28:39	12:45:45	Shutting down kiln.
4/14/2014			12:37:49	13:37:49			Clinker breaker bridged over.			
4/14/2014	20:16:58	21:36:59						21:11:34	21:21:06	Posimetric feeder level not working correctly.
4/14/2014								21:56:40		
4/15/2014									16:40:28	North head alignment on 513 elevator.
4/15/2014								16:52:48	22:54:28	Vibration.
4/15/2014								23:05:15		
4/16/2014										
4/17/2014									04:29:21	Silo 5 is empty.
4/17/2014								06:56:11	19:23:26	Kiln shut down for the fine coal dc opacity.
4/17/2014			19:14:08	20:14:08			Fine coal DC. Opacity.			
4/18/2014	01:17:15	02:39:16						02:16:45		
4/19/2014										

4/20/2014									06:55:47	Kiln going down.
4/20/2014			07:00:26	08:00:26			Planned outage.	11:27:26	11:32:50	Spinning off table.
4/21/2014							Kiln down.			
4/22/2014							Kiln down.			
4/23/2014							Kiln down.			
4/24/2014							Kiln down.			
4/25/2014							Kiln down.			
4/26/2014							Kiln down.			
4/27/2014							Kiln down.			
4/28/2014							Kiln down.			
4/29/2014							Kiln down.			
4/30/2014							Kiln down.			
5/1/2014							Kiln down.			
5/2/2014							Kiln down.			
5/3/2014							Kiln down.			
5/4/2014							Kiln down.			
5/5/2014							Kiln down.			
5/6/2014							Kiln down.			
5/7/2014							Kiln down.			
5/8/2014							Kiln down.			
5/9/2014							Kiln down.			
5/10/2014							Kiln down.			
5/11/2014							Kiln down.			
5/12/2014							Kiln down.			
5/13/2014							Kiln down.			
5/14/2014							Kiln down.			
5/15/2014							Kiln down.			
5/16/2014							Kiln down.			
5/17/2014							Kiln down.			
5/18/2014							Kiln down.			
5/19/2014							Kiln down.			
5/20/2014							Kiln down.			
5/21/2014							Kiln down.			
5/22/2014							Kiln down.			
5/23/2014							Kiln down.			
5/24/2014							Kiln down.			
5/25/2014							Kiln down.			
5/26/2014							Kiln down.			
5/27/2014							Kiln down.			
5/28/2014							Kiln down.			
5/29/2014							Kiln down.			
5/30/2014							Kiln down.			
5/31/2014							Kiln down.			
6/1/2014							Kiln down.			
6/2/2014							Kiln down.			

6/3/2014							Kiln down.			
6/4/2014							Kiln down.			
6/5/2014							Kiln down.			
6/6/2014							Kiln down.			
6/7/2014							Kiln down.			
6/8/2014							Kiln down.			
6/9/2014							Kiln down.			
6/10/2014							Kiln down.			
6/11/2014							Kiln down.			
6/12/2014	19:39:09	19:56:09			19:56:09	21:51:41	Plugged stage 3.			
6/12/2014	21:51:41	23:51:41								
6/13/2014								04:02:02	04:13:57	R508a shut down on overload.
6/13/2014								05:07:51		
6/14/2014									05:10:38	510 airslide shut down.
6/14/2014								05:21:07		
6/14/2014			10:45:13	11:45:13			Chunk in the clinker breaker.		10:57:01	Kilns down for a chunk in the clinker breaker.
6/14/2014	20:51:18	21:11:18	21:11:18				Plugged stage 3.			
6/14/2014	23:55:19	01:29:50								
6/15/2014								00:40:55	11:01:37	Thrust pads 3, 7, 11 75 psi.
6/15/2014								13:00:19	21:29:05	Blend silo full.
6/15/2014								23:34:54		
6/16/2014									01:34:35	Thrust pad 3, 7, 11 low pressure.
6/16/2014								01:44:02	01:47:51	Thrust pad pressure again.
6/16/2014								02:36:30	02:43:31	Low thrust pad pressure.
6/16/2014								03:14:04	03:30:05	Low thrust pad pressure.
6/16/2014								05:13:40	06:39:17	Low thrust pad pressure 3, 7, 11.
6/16/2014								07:41:35		
6/17/2014									01:22:27	Blend silo full.
6/17/2014								03:26:51	03:47:44	Boot full on 513 elevator.
6/17/2014								04:26:24	13:37:06	Blend silo full.
6/17/2014								14:53:43	21:40:43	Blend silo full.
6/18/2014								00:07:42	00:27:37	507A cyclone tripped.
6/18/2014								02:03:59	10:32:56	R502 shut down.
6/18/2014								10:54:13	17:07:23	Blend silo full.
6/18/2014								20:17:58		
6/19/2014									06:28:24	Blend silo full.
6/19/2014								10:13:07	23:51:20	Blend silo full.
6/20/2014								00:56:50	01:19:57	R507A tripped on overloads.
6/20/2014								01:55:24	04:27:53	Shutdown for maintenance.
6/20/2014								04:31:59	04:34:01	Maintenance.
6/20/2014								09:12:40		
6/21/2014									15:43:13	Shutting kiln down.
6/21/2014			15:33:34	16:33:34			Chunk in clinker breaker.			
6/21/2014	19:25:37	21:25:27						23:07:13		

6/22/2014										
6/23/2014									02:13:44	Blend silo full.
6/23/2014								04:07:44	19:49:55	Blend silo full.
6/23/2014			21:54:44	22:54:44			Chunk in clinker breaker.			
6/24/2014	13:23:58	14:42:59						14:49:35	21:39:04	Lost motion on the R513 elevator.
6/24/2014								21:53:10		
6/25/2014									00:10:49	Repairing skirting on the R502 belt.
6/25/2014								01:52:21	14:33:25	Blend silo full.
6/25/2014								16:34:48		
6/26/2014									05:56:14	R315 shut down, belt slip.
6/26/2014								08:54:09		
6/27/2014									01:53:43	R315 shut down.
6/27/2014								04:51:21	06:17:54	Shut down for maintenance.
6/27/2014								06:37:55	06:39:18	Table spinoff.
6/27/2014								08:59:43		
6/28/2014									16:46:54	R502 pull cord was pulled while cleaning.
6/28/2014								16:54:09		
6/29/2014									00:10:16	Blend silo full.
6/29/2014								02:06:20		
6/30/2014									06:49:58	Silo 5 empty.
6/30/2014								07:46:50		
7/1/2014									05:08:16	Maintenance.
7/1/2014								05:11:54	05:16:17	Spun off the table for maintenance.
7/1/2014								10:55:11	12:16:00	Vibration.
7/1/2014								12:31:00		
7/2/2014									12:10:22	Shut down for cap tag.
7/2/2014			12:04:18	13:04:18			Shut down for cap tag.			
7/2/2014	19:36:09	20:57:09						21:36:36		
7/3/2014									06:48:36	Blend silo full.
7/3/2014								09:55:24	21:55:55	Pull cord on 502.
7/4/2014								00:48:54	18:39:23	R510a air slide blower shut down. Restarted with no problems.
7/4/2014								20:02:50	20:43:29	R13 blend silo elevator shut down. restarted with no problems.
7/4/2014								20:55:07	21:12:10	R513 elevator shut down..restarted with no problems.
7/4/2014								21:41:07	22:01:42	R513 elevator shut down.
7/4/2014								22:27:28	22:33:41	R513 elevator shut down.
7/4/2014								22:51:59	23:03:48	R513 elevator shut down.
7/5/2014								00:03:57	00:26:22	R513 elevator shut down.
7/5/2014								00:40:30	00:44:09	R513 elevator shut down.
7/5/2014								02:11:35	09:53:48	kilns [going] down.
7/5/2014			09:45:09	10:45:10			Chunks in the clinker breaker.			
7/5/2014	10:45:10	11:56:10						10:54:30	11:54:29	502 shut down
7/5/2014								12:10:15	16:22:42	Kiln going down.

7/5/2014			16:14:45	17:14:45			Chunks in clinker breaker.			
7/6/2014							Kiln down.			
7/7/2014							Kiln down.			
7/8/2014							Kiln down.			
7/9/2014							Kiln down.			
7/10/2014							Kiln down.			
7/11/2014	13:33:09	15:33:09						16:41:14		
7/12/2014									18:33:52	R513 alignment.
7/12/2014								19:19:51		
7/13/2014			01:48:25	02:48:25			Kiln drive motor.		02:01:37	Kiln down.
7/14/2014	21:23:13	23:13:14						23:22:01		
7/15/2014									04:58:47	BHA water line broke.
7/15/2014			04:50:46	05:57:47			Water line broke for the BHA, ran out of water for the water spray.			
7/15/2014	05:57:47	07:57:47						08:12:07		
7/16/2014									02:23:56	R513 north align switch.
7/16/2014								03:42:41	07:07:25	High exit temp.....had lost tower water spray.
7/16/2014								07:28:11		
7/17/2014			03:35:06	04:35:06			Chunk in the clinker breaker.		03:45:07	Kiln down. Chunk in the clinker breaker.
7/17/2014	05:14:07	06:56:07						07:12:18	12:06:12	Blend silo full.
7/17/2014								14:54:44		
7/18/2014									03:28:37	Kiln down for k837.
7/18/2014			03:21:16	04:42:47			K837 key way fell out.			
7/18/2014	04:42:47	05:56:47						05:11:35	07:10:05	Maintenance day.
7/18/2014								07:12:39	07:13:40	Spinning table off.
7/18/2014								12:02:53		
7/19/2014									00:31:28	Kiln down to work on K837.
7/19/2014			00:23:24	01:06:54			K837 rotary airlock key way fell out again.			
7/19/2014	01:06:54	02:20:25						01:32:02		
7/20/2014									21:26:25	Out of clinker.
7/20/2014								21:33:52		
7/21/2014			05:57:19	06:57:19			Maintenance on the k837 rotary feeder.		06:07:29	Kilns down for maintenance on the K837 rotary feeder.
7/21/2014	12:03:51	14:03:51						15:07:56		
7/22/2014									03:39:30	513 blend silo elevator shut down. Restarted with no issues.
7/22/2014								06:50:16	21:08:21	Blend silo full.
7/23/2014								00:32:36	11:26:14	CAP TAG
7/23/2014			11:16:40	12:16:40			CAP TAG			
7/24/2014								01:28:17	01:28:21	Blend silo full.
7/24/2014	02:46:46	04:04:46						06:23:51	14:36:47	Blend silo full.
7/24/2014								16:13:43		

7/25/2014			04:05:25	04:37:55			Replaced cooling hose on k562 Cooler vent fan.		04:16:27	Kiln shutdown.
7/25/2014	004:37:55	06:37:55						05:26:15	06:46:41	Lost plant air pressure,
7/25/2014			06:37:55	07:37:55			Lost plant air pressure,			
7/25/2014	12:09:32	13:24:03						15:04:26		
7/25/2014					19:14:06	20:14:06	Plugged stage two.		19:25:07	Kiln shutdown.
7/26/2014							Kiln down.			
7/27/2014							Kiln down.			
7/28/2014							Kiln down.			
7/29/2014							Kiln down.			
7/30/2014	10:26:43	12:26:43						14:16:04		
7/31/2014									18:22:25	Blend silo full.
7/31/2014								20:36:29		
8/1/2014										
8/2/2014										
8/3/2014										
8/4/2014									18:36:27	Blend silo full.
8/4/2014								21:13:10		
8/5/2014									09:40:34	510 airslide.
8/5/2014								10:15:34		
8/6/2014			03:58:39	04:58:39			Cooler vent fan vibration.		04:08:52	Kilns down.
8/6/2014	20:32:59	21:51:59						21:36:52		
8/7/2014									12:39:52	Blend silo full.
8/7/2014								14:05:38	23:06:48	Blend silo full.
8/8/2014								01:05:01	13:10:56	Blend silo full.
8/8/2014								14:40:52	21:50:55	Blend silo full.
8/9/2014								00:31:35	16:06:50	Blend silo full.
8/9/2014								19:03:39		
8/10/2014									03:00:03	Blend silo full.
8/10/2014								06:44:49	17:55:11	Blend silo full.
8/10/2014								21:12:51		
8/11/2014									11:35:44	Blend silo full.
8/11/2014								15:42:38		
8/11/2014			17:25:53	18:25:53			Down due to hotspot at 95 feet.		17:36:37	Shutdown due to kiln shutdown.
8/12/2014							Kiln down.	06:14:03	06:30:24	Ran R315, R455 and raw mill table off.
8/13/2014							Kiln down.			
8/14/2014							Kiln down.			
8/15/2014							Kiln down.			
8/16/2014							Kiln down.			
8/17/2014							Kiln down.			
8/18/2014	09:28:36	11:28:26						13:34:52	13:41:41	R508A shut down, plugged 510A airslide.
8/18/2014								14:26:07		
8/19/2014									08:48:07	Blend silo full.
8/19/2014								11:21:46	16:53:34	North alignment top.
8/19/2014								17:22:52	18:18:07	R513 down on alignment.

8/19/2014								19:47:09	20:03:35	R513 alignment.
8/19/2014								20:40:52		
8/20/2014									20:05:04	455 chute full.
8/20/2014								20:33:08	20:33:54	456 chute full.
8/20/2014								21:38:30		
8/21/2014									01:11:07	Vibration due to feeder hang-ups.
8/21/2014								02:06:32	02:43:56	Vibration.
8/21/2014								03:02:58	14:12:40	R513 elevator alignment.
8/21/2014								14:28:24	17:56:34	Chute full on the 455.
8/21/2014								19:17:28		
8/22/2014									06:00:49	Maintenance.
8/22/2014								06:37:28	07:25:38	Maintenance.
8/22/2014			14:45:46	15:45:46			Maintenance on 513 elevator.			
8/23/2014							Kiln down.			
8/24/2014							Kiln down.			
8/25/2014							Kiln down.			
8/26/2014							Kiln down.			
8/27/2014							Kiln down.			
8/28/2014	07:26:17				08:06:48	10:30:49	Stage #4 plugged.			
8/28/2014	10:30:49				11:01:19	12:01:19	Stage #2 plugged.			
8/28/2014	14:22:21							14:56:31	18:39:15	Chute plugged above R468 surge bin.
8/28/2014								18:55:49		
8/29/2014										
8/30/2014										
8/31/2014										
9/1/2014									01:05:59	Blend silo full.
9/1/2014								02:38:46	23:47:31	Blend silo full.
9/2/2014								02:29:19	13:14:50	CAP TAG
9/2/2014			13:10:20	14:10:20			CAP TAG			
9/3/2014	01:10:30	03:10:30						04:22:56	09:50:30	Blend silo full.
9/3/2014								12:09:41	13:55:44	PLC tie-in.
9/3/2014			13:54:10	14:08:10			PLC tie-in.			
9/3/2014	14:08:10	15:22:10						15:11:13		
9/4/2014									05:51:57	Piece of steel wedged in rock feeder 5.
9/4/2014								07:32:23	19:07:34	R502 got hit.
9/4/2014								19:12:47	19:43:59	Hit the 502 pull cord while cleaning.
9/4/2014								22:12:11	22:12:40	502 overloaded.
9/4/2014								22:43:30		
9/5/2014										
9/6/2014									08:26:17	Blend silo full.
9/6/2014								09:15:58	18:08:36	Blend silo full.
9/6/2014								20:40:06		
9/7/2014									09:34:45	Blend silo full.
9/7/2014								11:39:56	16:54:52	513 blend silo elevator shut down.
9/7/2014								20:05:47		

9/8/2014									06:49:48	Silo 5 ran empty.
9/8/2014								07:00:19		
9/9/2014									05:46:36	Shutdown for maintenance.
9/9/2014								13:35:46	13:37:29	506b dust collector for the 502 reject belt shut down.
9/9/2014								13:46:52		
9/10/2014									07:43:53	Silo 5 empty.
9/10/2014								08:41:01	14:29:10	Kiln going down.
9/10/2014			14:25:05	15:25:05			Coal mill down.			
9/10/2014	22:00:10							22:18:31		
9/11/2014		00:00:10							04:29:30	Chute plugged above surge bin.
9/11/2014								04:44:27	05:49:16	Working on R513.
9/11/2014								07:36:49		
9/12/2014									06:08:56	Blend silo full.
9/12/2014								12:11:11	21:50:31	Kiln down for hot spot.
9/12/2014			21:41:58	22:41:58			Hot spot.	22:09:22	22:21:21	Kiln down.
9/13/2014							Kiln down.			
9/14/2014							Kiln down.			
9/15/2014							Kiln down.			
9/16/2014							Kiln down.			
9/17/2014							Kiln down.			
9/18/2014	16:04:19	17:44:20						21:28:18		
9/19/2014										
9/20/2014									06:09:07	Blend silo full.
9/20/2014								08:40:07	15:33:02	Blend silo full.
9/20/2014								19:26:02		
9/21/2014									08:08:52	Blend silo full.
9/21/2014								09:38:43		
9/22/2014									02:07:26	Blend silo full.
9/22/2014								03:39:33	09:38:43	Blend silo full.
9/22/2014								11:40:27		
9/23/2014									06:41:41	Electrical department working on R317.
9/23/2014								09:55:42	12:07:54	Kiln going down.
9/23/2014			12:02:03	13:19:04			Nose coal rotary feeder problems.			
9/23/2014	13:19:04							16:29:33	17:27:40	R504
9/23/2014								17:39:29		
9/24/2014									04:02:46	Kiln down.
9/24/2014			03:55:19	04:55:19			Chunks in clinker breaker.			
9/24/2014	07:13:51	08:50:54						10:10:38		
9/24/2014			16:33:02	17:33:02			Kiln drives tripped.		16:43:44	Kiln drives tripped.
9/25/2014	04:35:12	06:35:12						07:09:11		
9/26/2014										
9/27/2014									12:05:53	Blend silo full.
9/27/2014								14:00:54		
9/28/2014									03:34:41	Blend silo full.

9/28/2014								07:24:20		
9/29/2014									03:26:24	Blend silo full.
9/30/2014								06:22:02		
10/1/2014										
10/2/2014									03:33:37	Blend silo full.
10/2/2014								05:07:39	15:35:40	Blend silo full.
10/2/2014								17:20:25	21:55:30	Clearing reject chute.
10/2/2014								23:50:16		
10/3/2014									09:07:16	Cooler vent fan.
10/3/2014			09:00:05	10:00:05			Cooler vent fan.			
10/4/2014	06:57:04	08:57:04						10:11:33	21:40:08	R513 motion.
10/4/2014								21:57:37		
10/5/2014										
10/6/2014									04:06:04	Blend silo full.
10/6/2014								06:57:04	15:14:52	Changing out the power supply for the R450.
10/6/2014								19:27:49		
10/7/2014									07:39:38	502 pull cord.
10/7/2014								07:45:30	14:36:15	R468 posimetric fault.
10/7/2014								14:46:56		
10/8/2014									15:10:19	Blend silo full.
10/8/2014								17:30:49		
10/9/2014									08:08:30	Blend silo full.
10/9/2014								10:27:16	17:38:07	Chunks in clinker breaker.
10/9/2014			17:30:53	18:30:53			Chunks in clinker breaker.			
10/9/2014	20:21:57	22:21:57						22:51:34		
10/10/2014									07:09:45	Blend silo full.
10/10/2014								09:59:10		
10/11/2014										
10/12/2014					05:56:59	19:42:10	Stage 4 cone plugged.		06:08:24	Stage 4 cone plugged.
10/12/2014	19:42:10				20:02:10	21:24:40	Plugged stage 4.			
10/12/2014	21:24:40	23:24:40								
10/13/2014								00:24:52	20:08:50	Blend silo full.
10/13/2014								22:41:15		
10/14/2014									08:48:22	Stage 4 cone plugged.
10/14/2014					08:38:14	09:38:14	Stage 4 cone plugged.			
10/14/2014	15:51:51	17:11:51						19:40:44	22:15:48	Fix skirting on the R455.
10/14/2014								22:22:00		
10/15/2014									00:10:08	Patching a hole.
10/15/2014								00:34:37	13:51:21	510 airslide shut down.
10/15/2014								15:07:46		
10/16/2014									04:09:10	Blend silo full.
10/16/2014								06:53:13	10:43:17	Out of iron ore.
10/16/2014								12:22:36		
10/17/2014									10:19:33	Blend silo full.
10/17/2014								11:57:30		

10/18/2014									00:22:36	Blend silo full.
10/18/2014								02:31:03	04:35:28	Kiln going down.
10/18/2014			04:27:43	05:27:43			Window blew out of CIS section lower compartment.			
10/19/2014	09:54:34	11:46:04						11:54:02	13:30:07	Kiln going down.
10/19/2014					13:20:08	14:20:08	4th stage plugged.			
10/20/2014	09:26:43	11:01:46			11:01:46	12:01:46	K662 replaced drive chain.			
10/20/2014	21:43:52	23:43:52					Stage 1 plugged.			
10/20/2014										
10/21/2014								00:47:21		
10/21/2014			09:06:33	10:06:33			Jacking engine repair.		09:17:20	Kiln down for jacking engine repair.
10/21/2014	11:47:05	13:47:05						16:40:04		
10/22/2014									18:16:42	Blend silo full.
10/22/2014								21:31:38		
10/23/2014			06:00:54	07:00:54			Coal mill repairs.		06:13:08	Kiln down for coal mill repairs.
10/23/2014	16:00:08	17:39:08						19:14:51	19:29:26	R510a airslide plugged.
10/23/2014								23:32:12		
10/24/2014									06:38:25	Posimetric feeder fault.
10/24/2014								06:49:23	08:45:11	Down for maintenance.
10/24/2014								09:47:50		
10/25/2014									07:09:15	R468 rotary feeder faulted.
10/25/2014								07:30:53		
10/25/2014									09:30:50	Feeder plugged
10/25/2014								09:34:13	09:36:53	Feeder plugged. 209 down. Silos empty.
10/25/2014			18:40:38	19:40:38			Planned shutdown, lack of raw material.			
10/26/2014							Kiln down.			
10/27/2014							Kiln down.			
10/28/2014	07:29:41	09:29:41						08:21:28		
10/29/2014									09:25:17	Posimetric feeder fault.
10/29/2014								09:38:13	10:59:12	Iron ore empty.
10/29/2014								15:40:01		
10/30/2014									04:14:03	320 plugged. Shut down on vibration.
10/30/2014								04:16:55	09:12:40	Pull cord on 455 belt.
10/30/2014								09:26:54	23:04:15	R502 pull cord.
10/30/2014								23:13:46		
10/31/2014									06:14:47	Silo 5 empty.
10/31/2014								07:12:39		
11/1/2014									22:26:22	Patching a hole on the mill body.
11/2/2014								00:45:57	18:24:00	Power surges.
11/2/2014								18:32:35	20:05:33	Central Maine Power pulling plug.
11/2/2014			20:07:14	21:07:14			Central Maine Power request shutdown.			
11/3/2014	14:37:56	16:14:57						17:11:00	17:15:41	No control of feeders.
11/3/2014								19:42:06	19:46:38	R502 overloaded.
11/3/2014								21:18:39		
11/4/2014										

11/5/2014			13:55:12	14:52:14			Kiln drive tripped.		13:57:02	Kiln drive tripped.
11/5/2014	14:52:14	16:00:14						16:15:04		
11/6/2014									04:38:13	Kiln shutdown.
11/6/2014			04:41:03	05:41:03			Plugged tertiary air duct.			
11/6/2014	14:01:44	15:35:14						19:22:20	22:38:21	Silo 2 chain broke.
11/6/2014								23:29:22		
11/7/2014									06:18:26	Kiln going down.
11/7/2014			06:25:30	07:25:30			Kiln down.			
11/7/2014	17:35:00	19:35:00						19:16:09		
11/8/2014									21:16:30	R513 blend silo elevator shut down.
11/8/2014								21:18:30		
11/9/2014										
11/10/2014									06:56:00	Shutting down kiln.
11/10/2014			07:11:57	08:11:57			Down for maintenance.			
11/10/2014	12:29:03	14:37:33						17:21:06	18:33:06	kiln going down.
11/10/2014			18:33:06	19:33:06			Kiln hot spot.			
11/11/2014							Kiln down.			
11/12/2014							Kiln down.			
11/13/2014							Kiln down.			
11/14/2014							Kiln down.			
11/15/2014	17:25:01	18:01:31			18:01:31	20:05:33	Plugged stage 2.			
11/15/2014	20:05:33	22:02:34								
11/16/2014								01:12:09	03:07:10	Vibration.
11/16/2014								03:10:10	12:41:17	Vibration.
11/16/2014								13:32:17	13:42:17	Vibration.
11/16/2014								13:54:17		
11/17/2014									10:40:33	Vibration.
11/17/2014								10:57:34	11:15:34	Vibration.
11/17/2014								11:32:34	11:46:34	Vibration.
11/17/2014								12:52:34	12:57:34	Vibration.
11/17/2014								15:00:35	18:01:39	Vibration.
11/17/2014								19:21:39		
11/18/2015										
11/19/2014									22:58:21	Blend silo full.
11/20/2014								01:41:29	04:16:50	Blend silo full.
11/20/2014								05:48:45	11:43:38	Blend silo full.
11/20/2014								12:26:13	17:50:51	Blend silo full.
11/20/2014								19:36:42		
11/21/2014									07:45:13	Down for maintenance.
11/21/2014								07:47:00	07:47:02	No stop.
11/21/2014								07:58:38	08:00:24	Down for maintenance.
11/21/2014								10:46:04	23:59:17	Blend silo full.
11/22/2014								02:37:31	15:01:48	Blend silo full.
11/22/2014								16:42:00		
11/23/2014									01:24:59	Blend silo full.

11/23/2014								14:15:45		
11/24/2014									15:51:45	Vibration, carpet and water lances plugged.
11/24/2014								16:21:27	20:16:04	Material built up under 315 belt.
11/24/2014								20:39:18	20:42:26	Vibration.
11/24/2014								20:55:35	23:16:27	Poismetric feeder fault.
11/24/2014								23:23:11	23:25:15	Poismetric feeder fault.
11/24/2014								23:51:08	23:58:13	Poismetric feeder fault.
11/25/2014								04:54:08	10:24:32	Kiln down.
11/25/2014			10:20:52	11:20:52			Down for maintenance.			
11/25/2014	12:17:23	13:31:53						15:05:03		
11/26/2014										
11/27/2014									16:02:30	Kiln down.
11/27/2014			15:52:37	16:52:37			Chunk in clinker breaker.	16:30:43	16:40:26	Vibration.
11/27/2014	20:29:39	21:41:09						23:41:57		
11/28/2014									13:49:24	Stack testing.
11/28/2014								16:41:11		
11/29/2014									03:38:09	Vibration.
11/29/2014								03:54:10	11:45:20	Vibration.
11/29/2014								11:52:02	11:55:51	Vibration.
11/29/2014								12:09:17	12:30:37	Vibration.
11/29/2014								12:54:50	18:04:11	Posimetric [feeder] fault.
11/29/2014								18:14:39	18:15:48	Posimetric [feeder] fault.
11/30/2014								01:19:21		
12/1/2014									05:55:49	Blend silo full.
12/1/2014								06:09:50	19:56:21	Blend silo full.
12/1/2014								22:46:12		
12/2/2014			11:28:17	12:27:17			Pfister feeder faulted.		11:40:13	Pfister feeder faulted.
12/2/2014								13:10:12	13:14:14	Running off belts.
12/2/2014	14:40:56	16:17:57						16:56:23		
12/3/2014									08:59:30	Blend silo full.
12/3/2014			23:58:12				Planned shutdown.	11:26:51	23:14:27	Planned shutdown.
12/4/2014				00:58:12			Planned shutdown.			
12/5/2014	05:11:09	07:11:09	08:34:41				Pfister [feeder] problems.			
12/5/2014	09:11:11	09:13:11	09:13:11	10:13:11			Pfister [feeder] problems.			
12/5/2014	10:55:13	12:36:13					Pfister [feeder] problems.			
12/5/2014								12:43:47		
12/6/2014									00:34:15	Surge bin level.
								01:17:38		

ATTACHMENT 3

Dragon Products Company, LLC

Daily Raw Feed Constituent Concentrations

Dragon Products Company, LLC
USEPA and Dragon Products Company, LLC
Consent Agreement and Final Order
Attachment I: Condition 5: Baseline Data Collection
Daily Data Summaries

Sheet 3: Raw Feed Material Constituent Concentrations

MARCH

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	13%	12%	21%	12%	7%	12%	13%	9%	12%	17%	14%	11%	16%	20%	18%	14%	16%	12%	11%	8%	4%	25%	14%	8%	8%	10%	19%	17%	13%	15%	20%
Low Rock (st)	38%	27%	25%	29%	29%	24%	28%	36%	38%	38%	40%	35%	32%	31%	34%	33%	28%	33%	32%	30%	29%	34%	31%	32%	27%	26%	23%	25%	24%	17%	19%
Mag Rock (st)	18%	51%	43%	48%	52%	52%	44%	40%	38%	30%	32%	40%	38%	36%	36%	39%	44%	43%	47%	49%	53%	30%	46%	50%	55%	53%	46%	46%	51%	56%	51%
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sand (st)	20%	5%	6%	7%	8%	8%	10%	10%	8%	9%	9%	9%	8%	9%	11%	11%	11%	10%	7%	10%	9%	10%	8%	8%	9%	9%	10%	10%	10%	9%	7%
HI Silica Sand (st)	7%	1%	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%	0%	0%	0%	0%	1%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Iron Ore (st)	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Copper Slag (st) Iron Replacement	4%	4%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CKD (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

APRIL

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	17%	26%	28%	39%	17%	20%	10%	4%	13%	18%	10%	25%	30%	30%	17%	28%	24%	22%	19%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Low Rock (st)	29%	27%	31%	29%	38%	29%	35%	35%	33%	29%	32%	25%	24%	24%	31%	21%	28%	31%	32%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Mag Rock (st)	44%	35%	33%	25%	33%	38%	42%	47%	41%	41%	46%	36%	31%	35%	39%	40%	36%	34%	35%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Sand (st)	6%	7%	5%	4%	9%	8%	8%	8%	8%	7%	8%	9%	9%	7%	8%	7%	8%	9%	9%	14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
HI Silica Sand (st)	2%	2%	2%	1%	0%	3%	3%	3%	3%	2%	3%	3%	3%	2%	3%	2%	3%	2%	3%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Iron Ore (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Copper Slag (st) Iron Replacement	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	2%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CKD (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

MAY

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Kiln Down Entire Month																															

JUNE

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	10%	12%	10%	9%	10%	15%	18%	15%	15%	24%	20%	18%	11%	20%	33%	32%	37%	
Low Rock (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	35%	33%	36%	41%	36%	34%	33%	34%	31%	23%	26%	29%	33%	28%	21%	17%	17%	
Mag Rock (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	46%	44%	44%	43%	35%	44%	39%	37%	40%	43%	43%	45%	45%	48%	43%	35%	39%	34%	
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Sand (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9%	8%	8%	7%	11%	8%	8%	8%	7%	7%	7%	6%	6%	5%	7%	8%	8%	8%	
HI Silica Sand (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	2%	2%	2%	3%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	3%	3%	2%	
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Iron Ore (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Copper Slag (st) Iron Replacement	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CKD (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

JULY

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	31%	0%	26%	19%	24%	0%	0%	0%	0%	0%	30%	27%	24%	0%	14%	6%	3%	3%	3%	3%	4%	4%	17%	19%	7%	0%	0%	0%	9%	15%	
Low Rock (st)	23%	0%	27%	27%	26%	0%	0%	0%	0%	0%	30%	29%	31%	0%	34%	35%	28%	22%	20%	24%	28%	29%	20%	31%	27%	0%	0%	0%	32%	33%	
Mag Rock (st)	35%	0%	35%	42%	39%	0%	0%	0%	0%	0%	29%	33%	33%	0%	42%	48%	55%	60%	64%	62%	58%	53%	51%	36%	57%	0%	0%	0%	45%	38%	
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Sand (st)	7%	0%	8%	8%	7%	0%	0%	0%	0%	0%	7%	7%	7%	0%	7%	7%	9%	9%	8%	6%	6%	8%	6%	9%	6%	0%	0%	0%	9%	8%	
HI Silica Sand (st)	2%	0%	3%	3%	2%	0%	0%	0%	0%	0%	2%	2%	2%	0%	2%	2%	3%	3%	3%	2%	2%	3%	2%	3%	2%	0%	0%	0%	3%	3%	
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Iron Ore (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Copper Slag (st) Iron Replacement	2%	0%	2%	2%	2%	0%	0%	0%	0%	0%	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%	0%	0%	2%	2%	
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CKD (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

AUGUST

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	7%	16%	21%	29%	38%	36%	26%	15%	8%	9%	7%	0%	0%	0%	0%	0%	0%	5%	14%	21%	18%	7%	0%	0%	0%	0%	0%	0%	29%	19%	20%	6%
Low Rock (st)	33%	30%	30%	27%	25%	28%	23%	30%	27%	23%	23%	0%	0%	0%	0%	0%	0%	32%	26%	25%	23%	33%	0%	0%	0%	0%	0%	29%	31%	32%	30%
Mag Rock (st)	47%	40%	35%	31%	27%	26%	31%	34%	48%	52%	53%	0%	0%	0%	0%	0%	0%	54%	46%	34%	41%	48%	0%	0%	0%	0%	0%	31%	44%	40%	57%
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sand (st)	8%	9%	10%	8%	6%	6%	9%	8%	8%	7%	8%	0%	0%	0%	0%	0%	0%	7%	6%	7%	7%	7%	0%	0%	0%	0%	0%	6%	3%	4%	4%
HI Silica Sand (st)	3%	3%	2%	3%	2%	2%	3%	3%	3%	4%	3%	0%	0%	0%	0%	0%	0%	0%	2%	3%	2%	2%	0%	0%	0%	0%	0%	2%	1%	2%	1%
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Iron Ore (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Copper Slag (st) Iron Replacement	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	2%	2%	2%	2%
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CKD (st)	0%	0%	0%	0%	0%	0%	6%	7%	5%	3%	0%	0%	0%	0%	0%	0%	0%	0%	1%	7%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

SEPTEMBER

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	7%	29%	22%	22%	22%	24%	24%	12%	20%	23%	23%	13%	0%	0%	0%	0%	0%	30%	19%	21%	22%	26%	27%	23%	31%	25%	29%	23%	18%	16%	
Low Rock (st)	31%	30%	34%	29%	28%	33%	35%	34%	30%	27%	28%	30%	0%	0%	0%	0%	0%	32%	33%	30%	26%	31%	28%	32%	32%	33%	31%	30%	32%	32%	
Mag Rock (st)	51%	29%	31%	37%	35%	31%	29%	42%	35%	32%	30%	41%	0%	0%	0%	0%	0%	24%	36%	36%	35%	28%	31%	31%	26%	30%	29%	35%	35%	41%	
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Sand (st)	7%	8%	8%	8%	8%	7%	8%	7%	8%	7%	9%	8%	0%	0%	0%	0%	0%	8%	7%	8%	11%	9%	9%	9%	8%	8%	8%	8%	10%	7%	
HI Silica Sand (st)	2%	3%	2%	3%	3%	2%	3%	2%	3%	2%	3%	3%	0%	0%	0%	0%	0%	3%	2%	3%	4%	3%	3%	3%	3%	3%	3%	3%	3%	2%	
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Iron Ore (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Copper Slag (st) Iron Replacement	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CKD (st)	0%	0%	0%	0%	3%	0%	0%	0%	2%	6%	5%	4%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

OCTOBER

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	23%	24%	28%	25%	25%	27%	27%	24%	26%	29%	21%	18%	19%	11%	18%	25%	28%	28%	19%	0%	15%	22%	25%	21%	30%	0%	0%	36%	18%	24%	22%
Low Rock (st)	34%	31%	27%	25%	15%	14%	15%	27%	29%	22%	25%	28%	26%	30%	26%	25%	21%	19%	22%	0%	25%	18%	24%	27%	28%	0%	0%	22%	31%	28%	27%
Mag Rock (st)	31%	33%	34%	38%	47%	44%	44%	36%	31%	34%	42%	42%	43%	44%	43%	37%	38%	38%	47%	0%	46%	31%	37%	37%	27%	0%	0%	28%	39%	32%	36%
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sand (st)	8%	8%	6%	7%	9%	11%	9%	9%	8%	10%	9%	8%	8%	10%	9%	9%	9%	10%	8%	0%	8%	22%	8%	9%	11%	0%	0%	9%	8%	11%	11%
HI Silica Sand (st)	3%	2%	1%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%	3%	4%	2%	2%	2%	0%	0%	3%	2%	2%	2%
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Iron Ore (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Copper Slag (st) Iron Replacement	1%	2%	1%	2%	2%	2%	2%	2%	2%	3%	2%	3%	3%	3%	2%	2%	3%	3%	3%	0%	3%	3%	3%	3%	3%	0%	0%	3%	2%	2%	2%
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CKD (st)	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

NOVEMBER

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	19%	26%	31%	28%	31%	37%	37%	32%	21%	23%	0%	0%	0%	0%	0%	34%	27%	19%	24%	23%	28%	25%	30%	25%	21%	18%	20%	15%	19%	29%	
Low Rock (st)	32%	29%	28%	28%	28%	19%	18%	23%	26%	25%	0%	0%	0%	0%	0%	13%	16%	24%	24%	18%	11%	15%	13%	11%	14%	14%	13%	15%	29%	25%	
Mag Rock (st)	35%	32%	29%	34%	28%	29%	31%	34%	43%	42%	0%	0%	0%	0%	0%	43%	46%	47%	40%	49%	50%	52%	48%	55%	55%	60%	58%	59%	40%	33%	
Clay (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Sand (st)	9%	9%	7%	6%	9%	10%	9%	8%	7%	7%	0%	0%	0%	0%	0%	7%	7%	7%	8%	7%	8%	5%	6%	6%	5%	6%	6%	7%	9%	9%	
HI Silica Sand (st)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%	1%	1%	1%	2%	1%	1%	1%	1%	2%	
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Iron Ore (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Copper Slag (st) Iron Replacement	2%	2%	3%	2%	3%	3%	3%	2%	2%	2%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%	1%	2%	1%	1%	2%	2%	2%	3%	3%	
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CKD (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
O.C.S. (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

DECEMBER

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Sweet Rock (st)	18%	17%	23%	0%	18%	27%																									
Low Rock (st)	24%	23%	21%	0%	28%	28%																									
Mag Rock (st)	47%	48%	46%	0%	40%	35%																									
Clay (st)	0%	0%	0%	0%	0%	0%																									
Sand (st)	7%	8%	5%	0%	0%	6%																									
HI Silica Sand (st)	1%	1%	1%	0%	11%	1%																									
IP Fly Ash (wet) (st)	0%	0%	0%	0%	0%	0%																									
Iron Ore (st)	0%	0%	0%	0%	0%	0%																									
Copper Slag (st) Iron Replacement	2%	3%	3%	0%	2%	2%																									
Zinc Slag (st) (IRM)	0%	0%	0%	0%	0%	0%																									
CKD (st)	0%	0%	0%	0%	0%	0%																									
Spent Catalyst (st)	0%	0%	0%	0%	0%	0%																									
CLINKER 229 (st)	0%	0%	0%	0%	0%	0%																									
O.C.S. (st)	0%	0%	0%	0%	0%	0%																									
#2 STOCKPILE (st)	0%	0%	0%	0%	0%	0%																									

ATTACHMENT 4

Dragon Products Company, LLC

Ammonia CEMs Emissions Data and

Ammonia Slip Testing Results

Dragon Products Company, LLC
USEPA and Dragon Products Company, LLC
Consent Agreement and Final Order
Attachment I: Condition 5: Baseline Data Collection
Daily Data Summaries

Sheet 4: Ammonia CEMs Data

Date	NH3, PPM	NH3 DRY, PPMVD	NH3 DRY @7% O2, PPMVD
10/10/2014	1.73	1.99	2.05
10/11/2014	1.82	2.12	2.25
10/12/2014	1.43	1.66	1.85
10/13/2014	1.26	1.47	1.70
10/14/2014	1.01	1.19	1.40
10/15/2014	0.70	0.81	0.97
10/16/2014	0.90	1.06	1.20
10/17/2014	N/A	N/A	N/A
10/18/2014	N/A	N/A	N/A
10/19/2014	1.60	1.88	2.01
10/20/2014	0.75	0.90	1.22
10/21/2014	1.34	1.58	1.77
10/22/2014	N/A	N/A	N/A
10/23/2014	N/A	N/A	N/A
10/24/2014	N/A	N/A	N/A
10/25/2014	N/A	N/A	N/A
10/26/2014	N/A	N/A	N/A
10/27/2014	N/A	N/A	N/A
10/28/2014	N/A	N/A	N/A
10/29/2014	N/A	N/A	N/A
10/30/2014	N/A	N/A	N/A
10/31/2014	N/A	N/A	N/A
11/1/2014	N/A	N/A	N/A
11/2/2014	N/A	N/A	N/A
11/3/2014	N/A	N/A	N/A
11/4/2014	N/A	N/A	N/A
11/5/2014	N/A	N/A	N/A
11/6/2014	N/A	N/A	N/A
11/7/2014	N/A	N/A	N/A
11/8/2014	N/A	N/A	N/A
11/9/2014	N/A	N/A	N/A
11/10/2014	N/A	N/A	N/A
11/11/2014	N/A	N/A	N/A
11/12/2014	N/A	N/A	N/A
11/13/2014	N/A	N/A	N/A
11/14/2014	N/A	N/A	N/A

11/15/2014	N/A	N/A	N/A
11/16/2014	N/A	N/A	N/A
11/17/2014	N/A	N/A	N/A
11/18/2014	N/A	N/A	N/A
11/19/2014	N/A	N/A	N/A
11/20/2014	3.21	3.62	3.35
11/21/2014	4.55	5.38	5.46
11/22/2014	1.75	2.03	2.24
11/23/2014	0.60	0.69	0.77
11/24/2014	N/A	N/A	N/A
11/25/2014	N/A	N/A	N/A
11/26/2014	1.22	1.45	1.58
11/27/2014	0.50	0.59	0.64
11/28/2014	1.81	2.10	2.24
11/29/2014	0.55	0.65	0.69
11/30/2014	N/A	N/A	N/A
12/1/2014	1.80	1.91	1.90
12/2/2014	2.50	2.59	2.20
12/3/2014	3.44	3.57	3.16
12/4/2014	N/A	N/A	N/A
12/5/2014	N/A	N/A	N/A
12/6/2014	2.00	2.11	2.29

EASTMOUNT ENVIRONMENTAL SERVICES
Air Quality Specialists

Final Report

Annual RATA Testing and Biennial Ammonia Slip Testing – Kiln Stack

Prepared for . . .

Dragon Products Company, LLC
Thomaston, ME

Test Dates: 03/25-26/14

Prepared by . . .

Eastmount Environmental Services, LLC
2 New Pasture Rd.
Newburyport, MA 01950

Eastmount Project No. 13-100

CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

1.1 General Overview

Eastmount Environmental Services, LLC (Eastmount) of Newburyport, Massachusetts was retained by Dragon Products Company, LLC (Dragon) to perform annual Relative Accuracy Test Audit (RATA) procedures on a redundant Continuous Emission Monitoring System (CEMS) serving the facility's portland cement kiln exhaust stack (Kiln Stack). In addition, Eastmount also performed the biennial ammonia (NH_3) emission testing as part of the same field program. Testing was conducted pursuant to Dragon's Maine Department of Environmental Protection (Maine DEP) Air Emission License No. A-326-70-A-I, and amendment A-326-70-B-A. The program was conducted over the period of March 25-26, 2014. A summary of the primary parties involved in this test program is presented in Table 1-1.

1.2 Program Scope

As part of this test program, NH_3 slip testing was conducted to determine if NH_3 emission concentrations from the Kiln Stack demonstrated compliance with the limits presented in the facility's Part 70 Air Emission License under each of two operating test conditions (Raw Mill On and Raw Mill Off). Each test condition was comprised of three 60-minute isokinetic test runs operated in accordance with Conditional Test Method (CTM) 027 while the facility operated normally. Emission evaluations for ammonia were made on both a concentration (ppmvd @7%O_2) and mass (lb/hr) basis. A summary of the NH_3 results and corresponding emission limits are presented in Table 1-2.

RATA testing consisted of simultaneously conducting Part 60 RATA evaluations of the facility's partially redundant dilution based CEMSs. RATAs for both the primary and redundant/backup CEMS included SO_2 (lb/hr), NO_x (lb/hr) and CO (lb/hr), while the primary CEMS additionally included an evaluation for CO_2 (%v). An overall summary of the RATA results for the primary and backup CEMSs are presented in Tables 1-3 and 1-4, respectively.

1.3 Final Report Organization

The remainder of this Final Report is organized into four additional sections. Section 2 presents a summary of results, Section 3 presents source and sampling point descriptions, Section 4 provides a summary flue gas monitoring procedures, while Section 5 addresses the quality assurance/quality control aspects of the program. All emission calculations and field data sheets for the RATA and NH_3 testing data is presented in Appendices A and B, respectively; while all supporting quality assurance data is presented in Appendix C.

Table 1-1 Test Program Informational Summary

Source Information	
Facility Name:	Dragon Products Company, LLC
Facility Address:	107 New County Rd. (U.S. Route 1) Thomaston, ME 04861
Facility Contact:	Mr. Michael Martunas
Phone:	(207) 593-0147
Email:	Michael.Martunas@gcpv.com
Test Firm Information	
Test Organization:	Eastmount Environmental Services, LLC
Address:	2 New Pasture Rd., Unit 5 Newburyport, MA 01950
Contact:	Mr. David Caron, QSTI Groups 1-4
Title:	Vice President/Monitoring Services
Phone:	(978) 499-9300 x11
Email:	dcaron@eastmount.com
State Information	
Organization:	Maine DEP
Address:	Bureau of Air Quality 17 State House Station Augusta Maine, 04333-0017
Contact:	Mr. Robert Hartley
Phone:	(207) 287-7644
Email:	robert.w.hartley@maine.gov

Table 1-2 Ammonia Emission Summary – Kiln Stack

Parameter	Condition	Emission Results					
		(ppm@7%O_2)			(lb/hr)		
		Limit	Result	Status	Limit	Result	Status
Ammonia	RM On	20	2.19	Pass	6.3	0.73	Pass
Ammonia	RM Off	40	6.20	Pass	12.3	2.02	Pass

Table 1-3 RATA Summary – Kiln Stack (Primary CEMS)

Parameter	Units of Measure	RATA (%)	Limit	Regulation	Status
NO_x	lb/hr	6.28	10% of applicable standard	PS2 40CFR60, Appendix B	Pass
SO_2	lb/hr	0.47	10% of applicable standard	PS2 40CFR60, Appendix B	Pass
CO	lb/hr	2.65	5% of applicable standard	PS4 40CFR60, Appendix B	Pass
CO_2	%	0.18	1.0% absolute	PS3 40CFR60, Appendix B	Pass

Table 1-4 RATA Summary – Kiln Stack (Backup CEMS)

Parameter	Units of Measure	RATA (%)	Limit	Regulation	Status
NO_x	lb/hr	6.82	10% of applicable standard	PS2 40CFR60, Appendix B	Pass
SO_2	lb/hr	0.42	10% of applicable standard	PS2 40CFR60, Appendix B	Pass
CO	lb/hr	1.72	5% of applicable standard	PS4 40CFR60, Appendix B	Pass